

VOL. VIII

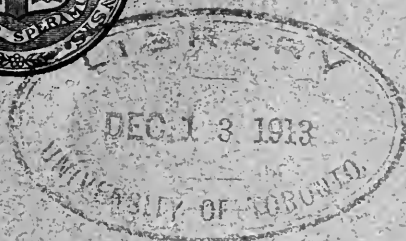
DECEMBER, 1911

NO. 5

# BULLETIN OF BROWN UNIVERSITY

THE CATALOGUE

1911-1912



PROVIDENCE  
PUBLISHED BY THE UNIVERSITY

[APRIL, MAY, JUNE, OCTOBER, DECEMBER]

## CORRESPONDENCE

Correspondence addressed simply to Brown University, Providence, Rhode Island, may be expected to reach the proper department, but in order to avoid delay correspondents are requested to note the following directions :

Communications relating to matters directly in the charge of the Corporation, and all correspondence bearing upon the general interests of the University, should be addressed to the President.

Requests for the Annual Catalogue and other publications, and inquiries relating to the admission of Undergraduate students, should be directed to the Registrar.

Inquiries concerning matters of high interest pertaining to Undergraduate students should be addressed to the Dean of the University.

Inquiries in regard to the Graduate Department should be addressed to the Dean of the Graduate Department.

Inquiries concerning the Women's College should be addressed to the Dean of the Women's College, Pembroke Hall.

Inquiries or information concerning Alumni should be sent to the Keeper of Graduate Records, University Library.

THE CATALOGUE  
OF  
BROWN UNIVERSITY

ONE HUNDRED & FORTY-EIGHTH YEAR

1911-1912



PROVIDENCE, RHODE ISLAND  
PUBLISHED BY THE UNIVERSITY  
1911

D. B. UPDIKE, THE MERRYMOUNT PRESS, BOSTON



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# CALENDAR 1911-1912

*Vacations and holidays occurring within the academic year 1911-12 are indicated by dark type.*

1911	1912	1912
<b>JULY</b>	<b>JAN.</b>	<b>JULY</b>
S M T W T F S	S M T W T F S	S M T W T F S
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16 17 18 19 20 21 22	21 22 23 24 25 26 27	21 22 23 24 25 26 27
23 24 25 26 27 28 29	28 29 30 31 . . . . .	28 29 30 31 . . . . .
30 31 . . . . .		
<b>AUG.</b>	<b>FEB.</b>	<b>AUG.</b>
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27 28 29 30 31 . . . .	25 26 27 28 29 . . . .	25 26 27 28 29 30 31
<b>SEPT.</b>	<b>MAR.</b>	<b>SEPT.</b>
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10 11 12 13 14 15 16	10 11 12 13 14 15 16	15 16 17 18 19 20 21
17 18 19 20 21 22 23	17 18 19 20 21 22 23	22 23 24 25 26 27 28
24 25 26 27 28 29 30	24 25 26 27 28 29 30	29 30 . . . . .
	31 . . . . .	.. . . . .
<b>OCT.</b>	<b>APR.</b>	<b>OCT.</b>
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8 9 10 11 12 13 14	7 8 9 10 11 12 13	6 7 8 9 10 11 12
15 16 17 18 19 20 21	14 15 16 17 18 19 20	13 14 15 16 17 18 19
22 23 24 25 26 27 28	21 22 23 24 25 26 27	20 21 22 23 24 25 26
29 30 31 . . . . .	28 29 30 . . . . .	27 28 29 30 31 . . . .
<b>NOV.</b>	<b>MAY</b>	<b>NOV.</b>
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12 13 14 15 16 17 18	12 13 14 15 16 17 18	10 11 12 13 14 15 16
19 20 21 22 23 24 25	19 20 21 22 23 24 25	17 18 19 20 21 22 23
26 27 28 29 30 . . . .	26 27 28 29 30 31 . .	24 25 26 27 28 29 30
<b>DEC.</b>	<b>JUNE</b>	<b>DEC.</b>
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10 11 12 13 14 15 16	9 10 11 12 13 14 15	15 16 17 18 19 20 21
17 18 19 20 21 22 23	16 17 18 19 20 21 22	22 23 24 25 26 27 28
24 25 26 27 28 29 30	23 24 25 26 27 28 29	29 30 31 . . . . .
31 . . . . .	30 . . . . .	.. . . . .

# THE UNIVERSITY CALENDAR 1911-12

1911

- SEPTEMBER 6. *Wednesday.* Annual Meeting of the Corporation (first Wednesday in September).
- SEPTEMBER 21-26. *Thursday, Friday, Saturday, Monday, and Tuesday.* Examinations for admission to the Freshman class and to advanced standing.
- SEPTEMBER 25, 26. *Monday and Tuesday.* Registration of new students and enrolment of students previously in residence.
- SEPTEMBER 27. *Wednesday.* ACADEMIC YEAR BEGINS (fourth Wednesday in September). Last day for registration of Graduate students.
- OCTOBER 7. *Saturday.* Examination in Greek for the President's Premiums, 5 Maxcy Hall, 2.30 p.m.
- OCTOBER 11. *Wednesday.* Examination in Latin for the President's Premiums, 1 Sayles Hall, 2.30 p.m.
- OCTOBER 14. *Saturday.* Examination in Mathematics for the Hartshorn Premiums, 27 Wilson Hall, 2 p.m.
- OCTOBER 18. *Wednesday.* Examination in French for the Hicks Premiums, 1 Sayles Hall, 2.30 p.m.
- OCTOBER 21. *Saturday.* Examination in German for the Hicks Premiums, 5 Sayles Hall, 2.30 p.m.
- NOVEMBER 30. *Thursday.* Thanksgiving Day. No University exercises.
- DECEMBER 6. *Wednesday.* Preliminary discussion for the Class of 1880 Prizes.
- DECEMBER 8. *Friday.* Last day for receiving essays submitted in competition for the Class of 1880 Prizes.
- DECEMBER 13. *Wednesday.* Public discussion for the Class of 1880 Prizes.
- DEC. 22, 1911, to }  
JAN. 2, 1912. } *Friday to Tuesday.* CHRISTMAS RECESS.

1912

JANUARY 23.	<i>Tuesday.</i> Last day for applications of competitors for the Carpenter Prizes in Elocution.
JAN. 29 to FEB. 8.	<i>Monday to Thursday.</i> Semester examinations.
FEBRUARY 9-13.	<i>Friday to Tuesday.</i> MID-YEAR RECESS.
FEBRUARY 12, 13.	<i>Monday and Tuesday.</i> Enrolment of Undergraduate students.
FEBRUARY 14.	<i>Wednesday.</i> SECOND SEMESTER BEGINS.
FEBRUARY 22.	<i>Thursday.</i> Washington's Birthday. No University exercises.
MARCH 26.	<i>Tuesday.</i> Last day for receiving essays submitted in competition for the Gaston Prize Medal.
MARCH 30.	<i>Saturday.</i> Last day for receiving applications for examination for the degree of Doctor of Philosophy, or of Master of Arts in <i>absentia</i> .
APRIL 3-9.	<i>Wednesday to Tuesday.</i> SPRING RECESS.
APRIL 27.	<i>Saturday.</i> Last day for receiving theses of candidates for the degree of Doctor of Philosophy. Last day for receiving Commencement orations.
APRIL 30.	<i>Tuesday.</i> Carpenter Prize Speaking Competition.
MAY 4.	<i>Saturday.</i> Last day for receiving essays submitted in competition for the Bishop McVickar prizes. Last day for receiving applications for the Grand Army of the Republic Fellowship.
MAY 7.	<i>Tuesday.</i> Gaston Prize Medal Competition.
MAY 14.	<i>Tuesday.</i> Hicks Prize Debate.
MAY 30.	<i>Thursday.</i> Memorial Day. No University exercises.
MAY 31.	<i>Friday.</i> Last day for examinations for advanced degrees.
JUNE 4-14.	<i>Tuesday to Friday.</i> Semester examinations.
JUNE 16.	<i>Sunday.</i> Baccalaureate Sermon, First Baptist Meeting House, 4.30 p.m.

- JUNE 17. *Monday.* Class Day.
- JUNE 18. *Tuesday.* Annual Meeting of the Phi Beta Kappa Society, Administration Building, 9.30 a.m.  
*Ivy Day,* Pembroke Hall.  
Annual Meeting of the Associated Alumni, Manning Hall, 2.30 p.m.
- JUNE 19. *Wednesday.* ONE HUNDRED AND FORTY-FOURTH ANNUAL COMMENCEMENT (third Wednesday in June), First Baptist Meeting House, 10 a.m.
- JUNE 20. *Thursday.* Meeting of the Corporation.
- JUNE 20 to SEPT. 24. SUMMER VACATION.
- SEPTEMBER 4. *Wednesday.* Annual Meeting of the Corporation (first Wednesday in September).
- SEPTEMBER 18-23. *Wednesday, Thursday, Friday, Saturday, and Monday.* Examinations for admission to the Freshman class and to advanced standing.
- SEPTEMBER 23, 24. *Monday and Tuesday.* Registration of new students and enrolment of students previously in residence.
- SEPTEMBER 25. *Wednesday.* ACADEMIC YEAR BEGINS (fourth Wednesday in September).

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PHILIP HENRY MITCHELL, PH.D. <i>Assistant Professor of Physiology</i>	19 Creighton Street
RAYMOND CLARE ARCHIBALD, PH.D. <i>Assistant Professor of Mathematics</i>	9 Charles Field Street
THEODORE FRELINGHUYSEN COLLIER, PH.D. <i>Associate Professor of European History</i>	86 Upton Avenue
HARDY CROSS, A.B., M.C.E. <i>Assistant Professor of Civil Engineering</i>	388 Benefit Street
HARLAN HARVEY YORK, PH.D. <i>Assistant Professor of Botany</i>	51 Arlington Avenue
JUSTIN HOMER BACON, A.M. <i>Acting Assistant Professor of the Romance Languages</i>	64 Barnes Street
HAMILTON CRAWFORD MACDOUGALL, MUS.D. <i>Lecturer in Music</i>	Wellesley, Mass.
NATHAN STERN, PH.D. <i>Lecturer in Biblical Literature and History</i>	509 Public Street
CLINTON HARVEY CURRIER, A.M. <i>Instructor in Mathematics</i>	19 Barnes Street
ALICE WILSON WILCOX, A.M. <i>Instructor in Physiology and Household Economics in the Women's College</i>	56 Alumni Avenue
WILLIAM THOMSON HASTINGS, A.M. <i>Instructor in English</i>	13 John Street
STANLEY BATES HARKNESS, A.B. <i>Instructor in English</i>	92 Williams Street
GILBERT CHINARD, B. ès L., L. ès L. <i>Instructor in French</i>	11½ John Street
NELSON CLARK DALE, Sc.B. <i>Instructor in Geology</i>	9 Charles Field Street
JOHN HERBERT BACHMANN, A.M. <i>Instructor in German</i>	144 Congdon Street
JOHN JOSEPH LONG, PH.B. <i>Instructor in Mechanical Drawing and Civil Engineering</i>	46 Front Street, Woonsocket
NORMAN EDWARD HOLT, A.B., Sc.M. <i>Instructor in Chemistry</i>	115 Governor Street
LAURENCE RICH GROSE, A.M. <i>Instructor in English</i>	18 Slater Hall

JOHN CORLISS DUNNING, PH.D. <i>Instructor in Social and Political Science</i>	45 Waterman Street
RALPH CAHOON WHITNACK, A.M. <i>Instructor in Economics</i>	116 Governor Street
ROLAND ELLIS HUTCHINS, Sc.B. <i>Instructor in Civil Engineering</i>	66 Meeting Street
JOHN FREDERICK SIEVERS, A.M. <i>Instructor in German</i>	388 Benefit Street
ROBERT FRANKLIN FIELD, A.M. <i>Instructor in Physics</i>	25 Wilson Street
ROBERT GAMBLE CASWELL, PH.B. <i>Instructor in Chemistry</i>	110 Waterman Street
ROBERT FOSTER CHAMBERS, Sc.M. <i>Assistant in Chemistry</i>	89 Courtland Street
WALTER BROOKS HENDERSON, PH.B. <i>Assistant in English</i>	116 Governor Street
JAMES ALEXANDER HALL, A.B., Sc.B. <i>Assistant in Mechanical Engineering</i>	31 Pocasset Avenue
ERNEST TROWBRIDGE PAINE, A.M. <i>Assistant in Philosophy</i>	148 Taber Avenue
HARRIS MERRILL BARBOUR, A.B., B.D. <i>Assistant in Philosophy</i>	101 Congdon Street
JOHN DONALD PRYOR, A.M. <i>Assistant in English</i>	36 University Hall
BERNARD ALOYSIUS KEENAN, A.B. <i>Assistant in German</i>	24 Caswell Hall
JOHN BURNHAM FERGUSON, A.B., M.D. <i>Demonstrator in Anatomy</i>	369 Broad Street
THERON CLARK, A.B. <i>Assistant Registrar</i>	152 Congdon Street
EMMA BRADFORD STANTON, A.M. <i>Registrar of the Women's College</i>	Bristol
HENRY DEWEES CADY <i>Instructor in Shop Practice</i>	2 University Hall
EDWIN AYLSWORTH BURLINGAME <i>Superintendent of Grounds and Buildings</i>	359 Brook Street
GEORGE ARNOLD MATTESON, M.D. <i>Physician to the University</i>	276 Benefit Street
HARRY EDWARD ROELKE, PH.B. <i>Reference Librarian</i>	11 Brunonia Hall

LAURA RUSSELL GIBBS, L.S.B. <i>Cataloguer</i>	66 College Street
WALTER COLBURN ROBERTSON <i>Assistant Reference Librarian</i>	9 Brunonia Hall
ALICE SCOTT MAILE, PH.B. <i>Assistant Cataloguer</i>	Edgewood
GERTRUDE MARY ALLEN, PH.B. <i>Clerk in the Library</i>	Riverside
MARY WIDMAN BRONSON, PH.B. <i>Assistant Cataloguer</i>	11 Benefit Street
REBECCA PHILLIPS STEERE <i>Cataloguer in the John Carter Brown Library</i>	84 Waterman Street
MARGARET BINGHAM STILLWELL, A.B. <i>Assistant in the John Carter Brown Library</i>	53 Elton Street
JOHN EDWARDS <i>Assistant in the Ladd Observatory</i>	Ladd Observatory
LOUISE PROSSER BATES, A.M. <i>Keeper of Graduate Records</i>	Oak Lawn
GENE WILDER WARE, A.B. <i>Organist and Director of Chapel Music</i>	160 Prospect Street

## STANDING COMMITTEES OF THE FACULTY

### ON REGISTRATION AND ATTENDANCE

DEAN MEIKLEJOHN, PROFESSORS UPTON, RANDALL, DELABARRE, HILL, and FOWLER, DEAN KING, MR. GUILD.

### ON THE CURRICULUM

PROFESSORS POLAND, DAVIS, HARKNESS, RANDALL, BRONSON, EVERETT, ALLINSON, HILL, MEAD, MEIKLEJOHN, MACDONALD, DAMON, and VON KLENZE, MR. GUILD.

### ON STUDENT ORGANIZATIONS

PROFESSORS DELABARRE, HILL, POTTER, MEIKLEJOHN, and MARVEL.

### ON STUDENT ADVISERS

PROFESSORS ALLINSON, GREENE, CROSBY, and RICHARDSON.



## OFFICE HOURS

THE PRESIDENT. 7 Administration Building: *11.30 a.m. to 12.30 p.m. except Mondays and Saturdays.*

THE DEAN OF THE UNIVERSITY. 5 Administration Building: *1.30 to 2.30 p.m., except Saturdays.*

THE REGISTRAR, AND SECRETARY OF THE FACULTY. 4 Administration Building: *8.30 a.m. to 4 p.m.; Saturdays to 1 p.m. Consultation Hours, 12 m. to 1 p.m., 3 to 4 p.m.*

THE ASSISTANT REGISTRAR. 4 Administration Building: *8.30 a.m. to 12 m., 1.30 to 4 p.m.; Saturdays to 1 p.m.*

THE DEAN OF THE GRADUATE DEPARTMENT. 5 or 6 Wilson Hall: *12.20 to 1.20, and 3.20 to 4.20 p.m.*

THE LIBRARIAN OF THE UNIVERSITY. The University Library: *9 to 10 a.m., 3 to 4 p.m.; Saturdays 9 to 10 a.m.*

THE LIBRARIAN OF THE JOHN CARTER BROWN LIBRARY. The Library: *9 a.m. to 5 p.m.*

THE SECRETARY OF THE TEACHERS' BUREAU. 10 Administration Building: *4.20 p.m. Mondays and Fridays; 5.20 p.m. Wednesdays; 12.20 p.m. Saturdays.*

THE SUPERINTENDENT OF GROUNDS AND BUILDINGS. 1 University Hall: *8 to 9 a.m.; 2 to 2.30 p.m.*

THE DEAN OF THE WOMEN'S COLLEGE. Pembroke Hall, Meeting Street: *10.15 to 11.25 a.m., except Saturdays.*

THE REGISTRAR OF THE WOMEN'S COLLEGE. Pembroke Hall, Meeting Street: *9 a.m. to 1 p.m., 2 to 4 p.m.; Saturdays to 1 p.m.*

THE PHYSICIAN TO THE UNIVERSITY. 276 Benefit Street: *2 to 4 p.m.; 7 to 8 p.m.*

## HISTORY OF BROWN UNIVERSITY

A GENERATION before the establishment of any institution of higher education in Rhode Island, Dean (afterwards Bishop) Berkeley, in pursuance of his cherished design of planting a Christian college in America, chose this colony as his place of residence. Here, at Newport or in its vicinity, he lived for nearly three years, from 1729 to 1731. At the close of this period it became evident that the money which had been voted for the project by the House of Commons would not be paid, and Berkeley reluctantly abandoned his project and returned to England. Though he had no direct relation to the college afterwards established, yet he inspired an interest in higher education among the colonists and thus made easier the success of the later undertaking.

In 1762 the Philadelphia Baptist Association, in view of the disabilities attaching to Baptist students in most of the existing American colleges, welcomed a proposal offered by the Reverend Morgan Edwards, a clergyman of Welsh birth, at that time pastor of the First Baptist Church in Philadelphia, to found in Rhode Island a college that should be under the control of their own denomination. James Manning, who had just been graduated from Princeton, was appointed by the Association as its agent to establish "a seminary of polite literature subject to the government of the Baptists."

In deciding upon the location of the new college, a canvass of the colonies had shown the advantages to be clearly on the side of Rhode Island, which recognized absolute religious liberty, and was, moreover, a Baptist colony in origin and popular attachment. There was no rival institution in the field; and the important cities of Newport and Providence, the former being the second city in New England, furnished an encouraging prospect of future support. Accordingly, in 1764, the friends of the movement obtained from the General Assembly the charter which still remains in force. Although, under the rules of the charter, the President and a majority of both the Fellows and the Trustees must be Baptists, the three important positions of Chancellor, Secretary, and Treasurer are without denominational restriction, and all religious tests and sectarian instruction are strictly prohibited. The institution was known during the first forty years of its existence as Rhode Island College.

As the College was at the beginning without funds, and only a scanty return could be expected from students' fees, it was necessary that the president should support himself and his family by some other means. The founding of a Baptist church in Warren and the call of Mr. Manning to its pastorate offered a solution of the difficulty; and hither Mr. Manning brought his family in the spring of 1764. His first act towards the establishment of a college was the opening of a Latin school. This preparatory school was later removed with the College to Providence, where it flourished for a hundred and forty years under the name of the University Grammar School. At the second meeting of the Corporation, September 4, 1765, Mr. Manning was formally appointed "president of the College, professor of languages and other branches of learning;" the first student had been matriculated the day before. In the following year David Howell was appointed tutor, but no other addition was made to the Faculty until 1774. In 1769 the first class (of seven members) was graduated at Warren. This town had not generally been regarded as the permanent seat of the College, and the necessity which now arose of erecting a college building compelled a final choice of location. After a spirited contest for the honor among the leading towns of the colony, the choice fell upon Providence. Here in 1770 the first college building, the present University Hall, modeled after Nassau Hall at Princeton, and a house for the president were both built on the college grounds, the cost being covered by subscriptions, chiefly from residents of Providence.

In 1771 President Manning was called to the pastorate of the First Baptist Church in Providence; he served the church in this capacity, in addition to his college duties, from that date until the close of his life. In December, 1776, the work of the College was interrupted by the Revolutionary War, and it was not resumed until the fall of 1782, University Hall being used meanwhile as a barrack and hospital for the combined American and French troops. Upon the reorganization of the College important additions were made to the library and the philosophical apparatus. The first college funds, amounting to \$4500, were collected in England and Ireland by the Reverend Morgan Edwards in 1767-8. In the next two years the Reverend Hezekiah Smith obtained subscriptions amounting to \$2500 in South Carolina and Georgia. The former contribution was made a permanent fund; the latter was expended in the construc-

tion of the college buildings. Further gifts were received for a time from the Philadelphia, Charleston, and Warren Baptist Associations, but they appear to have ceased with the outbreak of the Revolutionary War. In 1791, after twenty-nine years of service as founder and director of Rhode Island College, President Manning died. The College had become firmly established, with a graduate roll of one hundred and forty-nine; the last graduating class, that of 1790, had numbered twenty-two. At the time of his death the Faculty consisted of the president, four professors, and two tutors. The discipline during this period had been strict and paternal, the officers of instruction living under the same roof with the students and making frequent visits of inspection to their rooms. President Manning at first taught all the branches studied, but was designated professor of languages, afterwards of moral philosophy. David Howell, his assistant, taught mathematics and natural philosophy, and is said to have taught also French, German, and Hebrew. He was appointed professor of natural philosophy in 1769, and of law in 1790, but never taught the latter subject. Benjamin Waterhouse was appointed professor of natural history in 1784; and Benjamin West, professor of mathematics and astronomy in 1786.

The successor of President Manning was the Reverend Jonathan Maxey, a graduate in the class of 1787, who had been professor of divinity 1791-2. He served from 1792 until 1802, when he resigned his office to accept the presidency of Union College. During the last year of his administration at Rhode Island College a class numbering twenty-eight was graduated.

The third president of the College, the Reverend Asa Messer, a graduate in the class of 1790, who had served as professor of learned languages 1796-9, and of mathematics and natural philosophy 1799-1802, directed the affairs of the institution from 1802 until his resignation in 1826. During his presidency of twenty-four years the College was greatly expanded. A class numbering forty-eight was graduated in 1825, the Faculty in that year consisting of the president, nine professors, and two tutors. A medical school was established, which existed from 1811 until 1828 and sent out eighty-seven graduates. The special professorships created for the medical school were: materia medica and botany, 1811; anatomy and surgery, 1811; chemistry, 1811; theory and practice of medicine, 1815. A professor of moral philosophy and metaphysics was appointed in 1811; one of oratory and belles-lettres in 1815; and one of the Latin and

Greek languages and literature in 1825. In 1826 the permanent funds of the University amounted to \$31,300.

In 1792 Nicholas Brown, a graduate in the class of 1786, gave \$500 with which to purchase law books for the Library. In 1804 he endowed a professorship of oratory and belles-lettres. In the same year the name of the institution was changed in his honor to Brown University. In 1822 he built Hope College at his own expense, in 1834 Manning Hall, and in 1840 the second president's house. The last-named building has been used since 1899 as a refectory. The total value of Mr. Brown's various gifts to the University was not less than \$160,000. Mr. Brown also served the University in a most efficient way as treasurer 1796-1825. He was trustee 1791-1825, and fellow from 1825 until his death in 1841.

The fourth president, the Reverend Francis Wayland, entered upon his official duties in 1827. He at once raised the standard of scholarship and gradually increased the scope of the instruction. He finally accomplished an entire reorganization of the University on the basis of the elective principle. In accordance with this "New System," the bachelor's degree was given for a three years' course and the master's degree for a four years' course. Graduate study and special study were both encouraged; and the sciences, in accordance with the spirit of the charter, were made prominent in the curriculum. This system was not put into operation until 1850, and was fully in force only until his retirement five years later. The increase in the scope of the curriculum during President Wayland's administration is clearly shown in the following list of subjects to which professors or instructors were assigned at the dates annexed: chemistry, physiology, and geology, 1834; moral and intellectual philosophy, 1834; belles-lettres, 1835; rhetoric, 1837; Hebrew literature, 1838; modern languages and literature, 1843; Greek, 1843; Latin, 1844; French, 1844; history and political economy, 1850; natural philosophy and civil engineering, 1850; chemistry applied to the arts, 1850; rhetoric and English literature, 1851; didactics (*i. e.*, pedagogy), 1851; analytical chemistry, 1854. The influence of President Wayland was felt, not in an increase of the number of students, but in an elevation of the intellectual and moral tone of the institution. Discipline, which had grown lax, was strictly enforced. During his administration the college grounds were laid out, and the Library was placed on a sound financial basis. Rhode Island Hall was erected in 1840 from sub-

scriptions by Rhode Island men and women. The permanent funds were increased to \$200,000. Dr. Wayland resigned the presidency in 1855, having won for the University, by his fame as a writer, thinker, and educational reformer, an enviable distinction both at home and abroad.

The fifth president of the University, the Reverend Barnas Sears, a graduate in the class of 1825, held office from 1855 until 1867, when he resigned the presidency to become general agent of the Peabody Education Fund. During his incumbency the only new subject added to the curriculum was physical geography, in 1864. Although the term of President Sears covered the financial crisis of 1857 and the Civil War, a notable increase was made both in the funds and in the number of students. A system of scholarships was established, and over \$220,000 was collected in subscriptions. The Chemical Laboratory was built in 1862. In the last class that entered under President Sears seventy-three students were enrolled. Three hundred graduates and students of Brown entered the Union service, 1861-5. Of these twenty-one laid down their lives.

The Reverend Alexis Caswell, a graduate in the class of 1822, was the sixth president of the University, his term covering the years 1868-72. Under his administration the department of physics was organized, and the endowment was increased from \$365,000 to a sum exceeding \$550,000.

Upon the resignation of Dr. Caswell, the Reverend Ezekiel Gilman Robinson, a graduate in the class of 1838, became president. Dr. Robinson's presidency extended over the seventeen years 1872-1889. This period was marked by a further increase in the attendance, the class of 1889 being graduated with a membership of fifty-six. The following subjects were added to the curriculum, or were emphasized by the appointment of separate instructors: special branches of agriculture, 1872; zoölogy and agriculture, 1874; physiology, 1874; botany, 1877; zoölogy and geology, 1878; elocution, 1880; astronomy, 1884; logic, 1886; history, 1888; political economy, 1888. The funds were increased to \$980,000, and important additions were made to the buildings. Rhode Island Hall was enlarged in 1875. The Library, the gift of John Carter Brown, of the class of 1816, was built in 1878, and Slater Hall, the gift of Horatio Nelson Slater, in 1879. Sayles Hall, the gift of William Francis Sayles, a memorial to his son, William Clark Sayles, a member of the class of 1878, was built in 1881. University Hall, which had been renovated

in 1850, was again renovated in 1883. Dr. Robinson recognized the fact that a great opportunity for a university existed at Brown, and, though he was not able fully to realize his purposes, he prepared the way for the great enlargement of the institution under his successor. Besides the addition of various courses, a beginning was made in systematic graduate instruction. Dr. Robinson resigned the presidency in 1889.

The eighth president of the University was the Reverend Elisha Benjamin Andrews, a graduate in the class of 1870. With his accession in 1889 the modern life of the University properly begins. In the year preceding his presidency three graduate students were enrolled; in the last year of his term of service the graduate students numbered 101, the total number of students for the same years being, respectively, 268 and 860. The officers of instruction for the corresponding years increased in number from twenty-two to seventy-three. All the old departments were expanded, and the number of departments was increased from sixteen in 1889-90 to twenty-five in 1897-8. The department of philosophy was enlarged by the addition of psychology and pedagogy. American and European history were assigned to separate professors, and political economy was made a department. The departments of Greek literature and history, Roman literature and history, English literature and language, Germanic languages and literatures, and Romance languages and literatures were reorganized and extended. Rhetoric and oratory were made an independent department. The departments of mathematics, mechanical engineering, astronomy, physics (including electrical engineering), chemistry, zoölogy, geology, and anthropology, and botany were extended in scope and thoroughness. New departments were formed for the subjects of social and political science including law, fine arts including the history of art and music, Indo-European philology, Biblical literature and history including the Semitic languages and New Testament Greek, mechanical drawing, civil engineering, comparative anatomy, military science and tactics, and bibliography.

The museum of fine arts was founded in 1889, and that of anthropology in 1891. The funds were increased to \$1,125,685, and important additions were made to the buildings and grounds. In 1891 Hope College was renovated; Wilson Hall, the bequest of George Francis Wilson, was built; the Ladd Observatory was presented to the University by the Honorable Herbert W. Ladd; and the Lyman

Gymnasium, named in honor of its principal donor, was erected. Maxey Hall was built in 1895. Three buildings, known as the Howell, Messer, and Brown Street houses were also secured for dormitory purposes. The old playground of the University, now known as Lincoln Field, was graded and fitted up for ball-games and other athletic purposes in 1889. In 1898 a new athletic field was laid out on Camp Street, a mile and a half from the University. In 1891 the Grand Army of the Republic Fellowship Fund of \$10,000 was given to the University by the Rhode Island Department of that organization.

The Women's College was founded in October, 1891. At first only the privileges of University examinations and certificates of proficiency were granted. In June, 1892, all the College and University degrees and the graduate courses were opened to women. In November, 1897, the institution was accepted by the Corporation and officially designated the Women's College in Brown University. The immediate charge of this department, as of all others in the University, is in the hands of the Corporation. All instruction is given by members of the University Faculty. Pembroke Hall, which was built by the Rhode Island Society for the Collegiate Education of Women, was formally transferred to the University in October, 1897, and was accepted as the recitation hall of the Women's College.

In 1898 Dr. Andrews resigned the presidency to become Superintendent of Schools in Chicago. Dr. Benjamin Franklin Clarke, the senior member of the Faculty, who had served as president *pro tempore* during the absence of Dr. Andrews in Europe in 1896-7, was appointed president *ad interim*, and served during the academic year 1898-9.

The ninth president of the University is the Reverend William Herbert Perry Faunce, a graduate in the class of 1880, who entered upon his official duties on Commencement Day, 1899. At Commencement, 1900, announcement was made of an addition of over a million dollars to the endowment of the University. To this was added a year later a second million, including the endowment of the John Carter Brown Library. In 1900 the Slater Memorial Homestead was presented by Mrs. Horatio N. Slater, as a home for the students of the Women's College. In 1901 the president's house was erected at the corner of Hope and Manning streets. In 1902 the Van Wickle Administration Building was completed, this structure as well as the gates opposite being the bequest of Augustus Stout Van Wickle, of



the class of 1876. In 1904 Rockefeller Hall, the gift of John D. Rockefeller, was opened for the use of the Brown Union, a social organization of students and alumni which was formed in that year. In the same year the Engineering Building, on Lincoln Field, Caswell Hall, a dormitory fronting on Thayer Street, and the Colgate Hoyt swimming-pool, the gift of Colgate Hoyt, were erected, and a great organ, the gift of Lucian Sharpe, of the class of 1893, was placed in Sayles Hall. In 1904 the John Nicholas Brown Gate was built as a memorial to the late John Nicholas Brown by his widow. In the same year the Carrie Tower, a clock tower, erected by Paul Bajnotti, of Turin, to the memory of his wife, Carrie Mathilde Brown, was presented to the University. Since 1901 an iron fence with brick and stone posts has been built around the front and the middle campus, each section having been contributed by or in memory of some class. The classes of 1872, 1884, and 1887 have contributed gates. In the summer of 1905 the exterior of University Hall was restored to its original appearance at the expense of Marsden J. Perry. In 1906 the Gymnasium of the Women's College was erected by Frank A. Sayles as a memorial to his sister, Martha Fessenden Sayles. In 1907 the Marston Field House, the gift of Edgar L. Marston, of New York, was erected on Andrews Field. In the same year Stephen O. Metcalf gave a lot of land adjoining the Women's College and had the grounds laid out at his expense. In 1910 Miller Hall, the residence hall of the Women's College, was erected through the generosity of a group of friends. It was named in memory of Mrs. Horace G. Miller, a benefactor of the College. In April, 1911, the funds of the University, exclusive of those pertaining to the John Carter Brown Library, amounted to \$3,758,926.35.

The Library of the University dates from 1767, when the Reverend Morgan Edwards collected books for it in England. The collection was at first kept in University Hall. It was removed to Manning Hall upon the completion of that building in 1835, and in 1878 was transferred to the building on Waterman Street given by John Carter Brown. In April, 1909, the corner-stone of the John Hay Library was laid; the building was occupied at the opening of the academic year 1910-11.

In 1842 the Library contained ten thousand volumes; in 1878, forty-eight thousand. The present number, including the books in the twenty department libraries, but not including the John Carter Brown Library, is one hundred and eighty thousand. The Provi-

dence Library Company, now the Athenaeum, the Library of the Rhode Island Historical Society, the State Law Library, and the State Library have been most valuable adjuncts to the University Library; and, since the opening of the Providence Public Library in 1878, members of the University have made constant use of its choice and readily available resources. The Library Fund, established under President Wayland, has been supplemented by thirteen special funds, devoted to the departments of European history, United States history, medieval and church history, botany, the arts of design, biology, the classical languages and literatures, English literature, American poetry, and Economics. Gifts of one thousand dollars each have been made to the Library by the classes of 1872, 1884, 1885, 1886, 1887, 1888, and 1892. In 1884, by the will of the Honorable Henry B. Anthony, the Library came into possession of the Harris Collection of American Poetry, numbering five thousand volumes, since increased to more than seven thousand. In 1901 there was presented to the University the John Carter Brown Library, the most complete collection in the world on the history of the two Americas down to the end of the eighteenth century; the sum of \$500,000 was also given as an endowment and the sum of \$150,000 for the erection of a building. The building was dedicated in May, 1904. In October, 1903, the University received by the gift of Marsden J. Perry the Sidney S. Rider Collection of manuscripts, books, and other material, forming a library of the first importance to students of the history of Rhode Island. In June, 1910, the Library received as a gift from the classes of 1899 and 1900 the Hammond Lamont Library of twenty-seven hundred volumes, chiefly in the field of eighteenth century English literature. In November, 1911, the University received by bequest the George Earl Church Collection of South Americana, numbering 3,500 volumes.

At the close of the one hundred and forty-third Commencement of the University, in 1911, there were enrolled the names of 7,211 graduates, — 6,627 men and 584 women. Of this number, 6,370 had received the College or University first degree; 133, exclusive of the foregoing, had received advanced degrees; 69, not previously reckoned, had received the degree of Doctor of Medicine; 630 others had received honorary degrees. Of the entire number, 4,123, or fifty-seven per cent, were living.

# THE CHARTER OF BROWN UNIVERSITY‡

**B**Y the Honorable the Governor and Company of the English Colony of Rhode Island and Providence Plantations in New England in America in General Assembly convened at East Greenwich within and for the Colony aforesaid on the last Monday in February One Thousand Seven Hundred and Sixty-four.

*Date of the  
Charter*

*Whereas* Institutions for liberal Education are highly beneficial to Society by forming the rising Generation to Virtue, Knowledge, and useful Literature; and thus

*Preamble*

preserving in the Community a Succession of Men duly qualified for discharging the Offices of Life with Usefulness and Reputation; they have therefore justly merited and received the the Attention and Encouragement of every wise and well regulated State: And whereas a Public School or Seminary, erected for that Purpose within this Colony to which the Youth may freely resort for Education in the vernacular and learned Languages, and in the liberal Arts and Sciences would be for the general Advantage and Honor of the Government: And whereas Daniel Jenckes Esq; Nicholas Tillinghast Esq; Nicholas Gardiner Esq; Col. Josias Lyndon, Col. Elisha Reynolds, Peleg Thurston Esq; Simon Pease Esq; John Tillinghast Esq; George Hazard Esq; Col.

*Petition of the  
Undertakers*

Job Bennet, Nicholas Easton Esq; Arthur Fenner Esq; Mr. Ezekiel Gardiner, Mr. John Waterman, Mr. James Barker Junr, Mr. John Holmes, Solomon Drown Esq; Mr. Samuel Winsor, Mr. Joseph Sheldon, Charles Rhodes Esq; Mr. Nicholas Brown, Col. Barzillai Richmond, Mr. John Brown, Mr. Gideon Hoxsey, Mr. Thomas Eyres, Mr. Thomas Potter, Jun. Mr. Peleg Barker, Mr. Edward Thurston, Mr. William Redwood, Joseph Clarke Esq; Mr. John G Wanton, and Mr. Thomas Robinson with many other Persons, appear as Undertakers in the valuable Design: And thereupon a Petition hath been preferred to this Assembly, praying that full Liberty and Power may be granted unto such of them, with others, as are hereafter

‡ *With the exception of the marginal analysis and the notes, this reprint is an exact copy of the original charter engrossed on parchment, preserved in the archives of the University.*

mentioned, to found, endow, order, and govern a College or University, within this Colony; and that, for the more effectual Execution of this Design, they may be incorporated into one Body Politic, to be known in the Law, with the Powers, Privileges, and Franchises, necessary for the Purpose aforesaid.

*Now therefore know ye,* That being willing to encourage and patronize such an honorable and useful Institution, we the said Governor and Company, in General Assembly convened, Do, for ourselves and our Successors, in and by Virtue of the Power and Authority, within the Jurisdiction of this Colony, to us by the Royal Charter granted, and committed, Enact, Grant, Constitute, Ordain, and Declare, And it is hereby Enacted, Granted, Constituted, Ordained and Declared, That the Hon. Stephen Hopkins Esq; the Hon. Joseph Wanton Jun. Esq; the Hon. Samuel Ward Esq; the Hon. William Ellery Esq; John Tillinghast Esq; Simon Pease Esq; James Honyman Esq; Nicholas Easton Esq; Nicholas Tillinghast Esq; Darius Sessions Esq; Joseph Harris Esq; Francis Willet Esq; William Logan Esq; Daniel Jenckes Esq; George Hazard Esq; Nicholas Brown Esq; Jeremiah Niles Esq; Joshua Babcock Esq; Mr. John G Wanton, the Rev. Edward Upham, the Rev. Jeremiah Condry, the Rev. Marmaduke Brown, the Rev. Gardner Thurston, the Rev. Ezra Stiles, the Rev. John Greaves, the Rev. John Maxson, the Rev. Samuel Winsor, the Rev. John Gano, the Rev. Morgan Edwards, the Rev. Isaac Eaton, the Rev. Samuel Stillman, the Rev. Samuel Jones, the Rev. James Manning, the Rev. Russel Mason, Col. Elisha Reynolds, Col. Josias Lyndon, Col. Job Bennet, Mr. Ephraim Bowen, Joshua Clarke Esq; Capt. Jonathan Slade, John Taylor Esq; Mr. Robert Shettell Jones, Azariah Dunham Esq; Mr. Edward Thurston Junr. Mr. Thomas Eyres, Mr. Thomas Haszard, and Mr. Peleg Barker, or such, or so many of them as shall, within Twelve Months from the Date hereof, accept of this Trust, and qualify themselves as herein after directed, and their Successors, shall be forever hereafter One Body Corporate and Politic, in Fact and Name, to be known in Law by the Name of Trustees and Fellows of the College or University, in the English Colony of Rhode Island, and Providence Plantations in New England, in America; the Trustees and Fellows at any Time hereafter, giving such more particular Name to the Col-

lege, in Honor of the greatest and most distinguished Benefactor, ‡ or otherwise, as they shall think proper: Which Name, so given, shall, in all Acts, Instruments and Doings of said Body Politic, be superadded to their Corporate Name aforesaid, and become a Part of their legal Appellation by which it shall be forever known and distinguished: And that, by the same Name, they and their Successors, chosen by themselves as here-  
*Powers of Corporation*  
 after prescribed, shall, and may, have perpetual Succession; and shall, and may be Persons able and capable, in the Law, to sue and be sued, to plead and to be impleaded, to answer and to be answered unto, to defend and to be defended against, in all and singular Suits, Causes, Matters, Actions and Doings, of what Kind soever: And also to have, take, possess, purchase, acquire, or otherwise receive and hold Lands, Tenements, Hereditaments, Goods, Chattles, or other Estates; of all which they may, and shall stand and be seized, notwithstanding any Misnomer of the College, or the Corporation thereof; and by whatever Name, or however imperfectly the same shall be described in Gift, Bequests, and Assignments, provided the true Intent of the Assignor or Benefactor be evident:

‡ *The following is an extract from the records of a meeting of the Corporation held September 6, 1804:*

**A** LETTER from Mr. Nicholas Brown, dated on this present day, having been read in the following words, to—wit:

*Gentlemen:*

PROVIDENCE, September 6, 1804.

**I**T is known to you that I have long had an attachment to this institution as the place where my deceased brother Moses and myself received our education. This attachment derives additional strength from the recollection that my late honored Father was among the earliest, and most zealous patrons of the College; and is confirmed by my regard to the cause of Literature in general. Under these impressions I hereby make a donation of Five Thousand Dollars to Rhode Island College, to remain in perpetuity as a fund for the establishment of a Professorship of Oratory and Belles Lettres. The money will be paid next Commencement and is to be vested in such funds as the Corporation shall direct for its augmentation to a sufficiency in your judgment to produce a competent annual Salary for the within mentioned Professorship.

I am very respectfully, Gentlemen, with my best wishes for the prosperity of the College, your obedient friend,

NICHOLAS BROWN.

*Honored Corporation of Rhode Island College.*

**I**T is therefore voted: That the thanks of this Corporation be presented to Mr. Nicholas Brown for the aforesaid Donation, and it is further Voted, That this College be called and known in all future time by the Name of Brown University in Providence in the State of Rhode Island and Providence Plantations.

Also the same to grant, demise, aliene, lease, use, manage and improve according to the Tenor of the Donations, and to the Purposes, Trusts, and Uses to which they shall be seized thereof. *To found,* And full Liberty, Power, and Authority is hereby granted unto the said Trustees and Fellows, and their Successors, to found a College, or University, within this Colony, for promoting the liberal Arts, and universal Literature: And with *endow* the Monies, Estates, and Revenues, of which they shall from Time to Time become legally seized as aforesaid, to endow the same: And erect the necessary Buildings and Edifices thereof on such Place within this Colony as they shall think *and govern* convenient: And generally to regulate, order, and *the College* govern the same, appoint officers, and make Laws, as herein after prescribed; and hold, use, and enjoy all the Liberties, Privileges, Exemptions, Dignities and Immunities, enjoyed by any College, or University, whatever.

*And furthermore,* That the said Trustees and Fellows, and their Successors, shall, and may, forever hereafter *Seal* have a Publick Seal to use for all Causes, Matters, and Affairs, whatever, of them and their Successors, and the same Seal to alter, break, and make anew, from Time to Time, at their Will and Pleasure; which Seal shall always be deposited with the President, or Senior Fellow.

*And furthermore,* By the Authority aforesaid, It is hereby Enacted, Ordained and Declared, That it is now, *Corporation* and at all Times hereafter shall continue to be the *with two* unalterable Constitution of this College, or University, that the Corporation thereof shall consist of Two *branches* Branches, to wit: That of the Trustees, and that of the Fellowship, with distinct, separate, and respective Powers: And that the Number of the Trustees shall, and may be Thirty-six; of which *Number and* Twenty-two shall forever be elected of the Denomi- *denomination* nation called Baptists, or Antipædobaptists; Five *of the Trustees* shall forever be elected of the Denomination called Friends, or Quakers; Four shall forever be elected of the Denomination called Congregationalists, and Five shall forever be elected of the Denomination called Episcopalians: And that the Succession in this Branch shall be forever chosen and filled up from the respective Denominations in this Proportion, and according to these Num-

bers; which are hereby fixed, and shall remain to Perpetuity immutably the same. And that the said Stephen Hopkins, Joseph Wanton, Samuel Ward, William Ellery, John Tillinghast, Simon Pease, James Honyman, Nicholas Easton, Nicholas Tillinghast, Darius Sessions, Joseph Harris, Francis Willett, Daniel Jenckes, George Hazard, Nicholas Brown, Jeremiah Niles, John G. Wanton, Joshua Clarke, Gardner Thurston, John Greaves, John Maxson, John Gano, Samuel Winsor, Isaac Eaton, Samuel Stillman, Russel Mason, Elisha Reynolds, Josias Lyndon, Job Bennet, Ephraim Bowen, John Taylor, Jonathan Slade, Robert Shettell Jones, Azariah Dunham, Edward Thurston Junr, and Peleg Barker, or such, or so many of them as shall qualify themselves as aforesaid, shall be, and they are hereby declared and established the first and present Trustees. And that the Number of the Fellows, inclusive of the President (who shall always be a Fellow) shall and may be Twelve; of which Eight shall be forever elected of the Denomination called Baptists, or Antipædobaptists; and the rest indifferently of any or all Denominations. And that the Rev. Edward Upham, the Rev. Jeremiah Condry, the Rev. Marmaduke Brown, the Rev. Morgan Edwards, the Rev. Ezra Stiles, the Rev. Samuel Jones, the Rev. James Manning, William Logan Esq; Joshua Babcock Esq; Mr Thomas Eyres, and Mr. Thomas Haszard, or such, or so many of them as shall qualify themselves as aforesaid, shall be, and they are hereby declared the first and present Fellows and Fellowship, to whom the President, when hereafter elected, (who shall forever be of the Denomination called Baptists or Antipædobaptists) shall be joined to compleat the Number.

*Original Trustees*

*Number and denomination of the Fellows*

*Original Fellows*

*And furthermore,* It is Declared and Ordained, That the Succession in both Branches, shall at all Times hereafter be filled up and supplied according to these Numbers, and this established and invariable Proportion from the respective Denominations by the separate Election of both Branches of this Corporation, which shall at all Times sit and act by separate and distinct Powers: And in general, in Order to the Validity and Consummation of all Acts, there shall be in the Exercise of their respective separate and distinct Powers, the joint Con-

*Relative numbers always the same*

*Concurrent action of Trustees and Fellows*

currence of the Trustees and Fellows, by their respective Majorities, except in adjudging and conferring the Academical Degrees, which shall forever belong, exclusively, to the Fellowship as a learned Faculty.

*And furthermore,* It is Constituted, That the Instruction and Government by immediate Government of the College shall forever be, and rest in the President and Fellows or Fellowship.

*And furthermore,* It is Ordained, That there shall be a general Meeting of the Corporation on the First Wednesday in September annually, within the College Edifice, and until the same be built, at such Place as they

*Annual Meeting* shall appoint, to consult, advise and transact the Affairs of the College or University: At which or at any other Time, the Public Commencement may be held and celebrated. And that on any special Emergencies, the President, with any Two of the Fellows, or any Three of the Fellows, exclusive of the

*Special Meetings* President, may convoke, and they are hereby empowered to convoke an Assembly of the Corporation on Twenty Days Notice: And that in all Meetings, the major Vote of those present of the Two Branches respectively, shall be deemed their respective Majorities aforesaid: Provided, That

*Quorum* not less than Twelve of the Trustees, and Five of the Fellows, be a Quorum of their respective Branches. That the President, or, in his Absence, the Senior Fellow present, shall always be Moderator of the Fellows: That the Corporation, at their annual Meetings, once in Three

*Moderator of Fellows* Years, or oftener in Case of Death or Removal, shall, and may choose a Chancellor of the University, and Treasurer, from among the Trustees, and a Secretary from among the Fellows: That the Nomination of the Chancellor shall be in the Trustees, whose Office shall be only to preside as a Moderator of the Trustees; and that in his Absence, the Trustees shall choose a Moderator for the

*Chancellor, Treasurer and Secretary chosen triennially* Time being, by the Name of Vice-Chancellor: and at any of their Meetings, duly formed as aforesaid, shall and may be elected a Trustee or Fellow, or Trustees, or Fellows, in the Room of those nominated in this

*Vice-Chancellor*



Charter, who may refuse to accept, or in the Room of those who may die, resign, or be removed.

*Vacancies to be filled*

*And furthermore,* It is Enacted, Ordained and Declared, That this Corporation, at any of their Meetings, regularly convened as aforesaid, shall and may elect and appoint the President and Professor of Languages, and the several Parts of Literature: And upon the Demise of him or them, or either of them, their Resignation or Removal from his or their Office, for Misdemeanor, Incapacity, or Unfaithfulness, (for which he or they are hereby declared removable by this Corporation) others to elect and appoint in their Room and Stead: And at such Meeting, upon the Nomination of the Fellows, to elect and appoint Tutors, Stewards, Butlers, and all such other Officers usually appointed in Colleges or Universities, as they shall find necessary, and think fit to appoint for the promoting liberal Education, and the well ordering the Affairs of this College; and them or any of them, at their Discretion to remove, and substitute others in their Places. And in Case any President, Trustee or Fellow, shall see Cause to change his religious Denomination, the Corporation is hereby empowered to declare his or their Place or Places vacant, and may proceed to fill up it or them accordingly, as before directed, otherwise each Trustee and Fellow, not an Officer of Instruction, shall continue in his Office during Life, or until Resignation. And further, in Case either of the religious Denominations should decline taking a Part in this Catholic, comprehensive and liberal Institution, the Trustees and Fellows shall and may compleat their Number, by electing from their respective Denominations, always preserving their respective Proportions herein before prescribed and determined: And all Elections shall be by Ballot or written Suffrage: And that a Quorum of Four Trustees & Three Fellows may transact any Business, excepting placing the College Edifice, Election of Trustees, President, Fellows and Professors, that is to say, so that their Acts shall be of Force and Validity until the next annual Meeting, and no longer.

*Election of President and Professors*

*Appointment of other officers*

*Vacancy by change of denomination*

*Elections by ballot*

*Minor quorum*

*And* it is further Enacted and Ordained by the Authority aforesaid, That each Trustee and Fellow, as well those nominated in

this Charter, as all that shall hereafter be duly elected, shall, previous to their acting in a corporate Capacity, take the Engagement of Allegiance prescribed by the Law of this Colony, to his Majesty King George the Third, His Heirs and Rightful Successors to the Crown of Great-Britain, which Engagement shall be administered to the present Trustees and Fellows, by the Governor or Deputy-Governor of this Colony, and to those from Time to Time hereafter elected by their respective Moderators, who are hereby empowered to administer the same.†

*And* still more clearly to define and ascertain the respective Powers of the Two Branches, on making and enacting Laws, *Laws of the* It is further Ordained and Declared, That the Fellowship shall have Power, and are hereby empowered from Time to Time, and at all Times hereafter, to make, enact and publish all such Laws, Statutes, Regulations and Ordinances, with Penalties, as to them shall seem meet, for the successful Instruction and Government of said College or University, not contrary to the Spirit, Extent, true Meaning and Intention of the Acts of the British Parliament, or the Laws of this Colony; and the same Laws, Statutes and Ordinances to repeal: Which Laws, and the Repeals thereof, shall be laid before the Trustees, and with their Approbation shall be of Force and Validity, but not otherwise. And further the Trustees and Fellows, at their Meetings aforesaid, shall ascertain the Salaries of the respective *Salaries of officers* Officers, and order the Monies assessed on the Students for Tuition, Fines and incidental Expenses, to be collected by the Steward, or such other Officer as they shall appoint to collect the same; and the same with their Revenues, and *Audit of accounts* other College Estates in the Hands of the Treasurer, to appropriate in discharging Salaries and other College Debts: And the College Accounts shall be annually auditted and adjusted in the Meeting of the Corporation.

*And furthermore*, It is hereby Enacted and Declared, That

† September 4, 1782, the Corporation by vote omitted from the engagement the acknowledgment of allegiance to the British crown. The form of engagement has since been modified at various times; the present form is as follows: You [person's name] being elected a member of this Corporation to the place of [Fellow or Trustee] do solemnly engage true allegiance to bear to the United States of America, and faithfully to discharge the duties of your present appointment: And this engagement you make and give on the peril of the penalty of perjury.

into this liberal and catholic Institution shall never be admitted any religious Tests: But on the contrary, all the Members hereof shall forever enjoy full, free, absolute, and uninterrupted Liberty of Conscience: And that the Places of Professors, Tutors, and all other Officers, the President alone excepted, shall be free and open for all Denominations of Protestants: And that Youth of all religious Denominations shall and may be freely admitted to the equal Advantages, Emoluments and Honors of the College or University; and shall receive a like, fair, generous, and equal Treatment during their Residence therein, they conducting themselves peaceably, and conforming to the Laws and Statutes thereof. And that the public Teaching shall, in general, respect the Sciences; and that the Sectarian Differences of Opinions, shall not make any Part of the public and classical Instruction: Although all religious Controversies may be studied freely, examined and explained by the President, Professors, and Tutors, in a personal, separate and distinct Manner, to the Youth of any or each Denomination: And above all, a constant Regard be paid to, and effectual Care taken of, the Morals of the College.

*No religious tests*

*And furthermore*, for the Honor and Encouragement of Literature, we Constitute and Declare, the Fellowship aforesaid, a Learned Faculty; and do hereby give, grant unto, and invest them, and their Successors, with full Power and Authority, and they are hereby authorized and empowered, by their President, and in his Absence by the Senior Fellow, or One of the Fellows appointed by themselves at the anniversary Commencement, or at any other Times, and at all Times hereafter, to admit to, and confer any and all the learned Degrees, which can or ought to be given and conferred in any of the Colleges or Universities in America; or any such other Degrees of literary Honor as they shall devise, upon any and all such Candidates and Persons as the President and Fellows, or Fellowship, shall judge worthy of the Academical Honors: Which Power of conferring Degrees is hereby restricted to the learned Faculty, who shall or may issue Diplomas or Certificates of such Degrees, or confer Degrees by Diplomas, and authenticate them with the Public Seal of the Corporation, and the Hands of the President and Secretary, and of all the Professors, as Witnesses, and deliver them to the graduates as honorable and perpetual Testimonies.

*Fellows to confer degrees*

*Diplomas granted*

*And furthermore*, for the greater Encouragement of this Seminary of Learning, and that the same may be amply endowed and enfranchised with the same Privileges, Dignities, Exemption and Immunities enjoyed by the American Colleges, from taxation, and European Universities, We do Grant, Enact, Ordain, and Declare, And it is hereby Granted, Enacted, Ordained, and Declared, That the College Estate, the Estates, Persons, and Families of the President and Professors, for the Time being, lying and being within the Colony, with the Persons of the Tutors and Students, during their Residence at the College, shall be freed and exempted from all Taxes,† serving on Juries, and menial Services: And that the Persons aforesaid shall be exempted from

† *February 11, 1863, the Corporation voted as follows:*

**W**HEREAS the General Assembly of the State of Rhode Island at its present session on the 11th day of February 1863, has passed an Act the principal Section of which is in the following words viz: Section 1. The Corporation of Brown University in Providence consenting hereto that the estates, persons and families of the President and Professors for the time being, and their successors in office, shall not hereafter be freed and exempted from taxes for more than the amount of Ten Thousand dollars for each of such officers, his estates persons and family included.

And Whereas the Institution of Brown University, was established by its founders, was incorporated with liberal franchises by the State, has been maintained solely by private benefactions; all uniting for the same noble object, that is, to create and promote a seminary of religion and learning within this state whose beneficent influences should be diffused, at home and abroad through all time.

And Whereas those influences can, and will be most happily diffused and continued by a cordial good will and a harmonious coöperation between the General Assembly and citizens of this State and the University.

And Whereas the General Assembly by its Act aforesaid has expressed the opinion that the President and Professors should bear a portion of the burdens of taxation from which they are exempted by our charter, and has made the validity of its said Act to depend upon the consent of this Corporation thereto, thereby affirming and maintaining the inviolability of said Charter.

**T**HEREFORE, in order to manifest our cordial compliance with a reasonable wish of the General Assembly as expressed in said Act, It is hereby Voted and declared by the Corporation of Brown University, that being authorized by the President and Professors of said University, this Corporation does in behalf of the President and Professors and in behalf of this Corporation consent to the said Act passed by the General Assembly of the State of Rhode Island at its present session, as aforesaid—and the Secretary of this Corporation is hereby instructed to file a copy of this vote under the seal of the Corporation and certified by himself in the Office of the Secretary of State, as proof of the consent of this Corporation thereto.

The above Report was accepted and the Vote was adopted unanimously.

bearing Arms, Impresses and Military Services, except in case of an Invasion.

*And furthermore*, for establishing the Perpetuity of this Corporation, and in Case that at any Time hereafter, through Oversight, or otherwise through Misapprehensions, and mistaken Constructions of the Powers, Liberties and Franchises herein contained, any Laws should be enacted, or any Matters done and transacted by this Corporation contrary to the Tenor of this Charter, It is hereby Enacted, Ordained and Declared, That all such Laws, Acts, and Doings, shall be in themselves null and void: Yet, Nevertheless, the same shall not in any Courts of Law, or by the General Assembly, be deemed, taken, interpreted, or adjudged into an Avoidance, Defeazance or Forfeiture of this Charter: But that the same shall be, and remain unhurt, inviolate, and entire unto the said Corporation, in perpetual Succession: Which Corporation may, at all Times, and forever hereafter proceed and continue to act: And all their Acts, conformable to the Powers, Tenor, true Intent and Meaning of the Charter, shall be, and remain in full Force and Validity, the Nullity and Avoidance of any such illegal Acts to the contrary in any wise notwithstanding.

*Perpetuity of  
the Corpora-  
tion*

*And lastly*, We the Governor and Company aforesaid, Do, for ourselves and our Successors, forever hereby Enact, Grant and Confirm unto the said Trustees and Fellows, and to their Successors, That this Charter of Incorporation, and every Part thereof, shall be good and available in all Things in the Law, according to our true Intent and Meaning: And shall be construed, reputed, and adjudged in all Cases most favorably on the Behalf and for the best Benefit and Behoof of the said Trustees and Fellows, and their Successors, so as most effectually to answer the valuable Ends of this useful Institution.

*Charter for the  
benefit of the  
Corporation  
and the Col-  
lege*

*In* full Testimony of which Grant, and of all the Articles and Matters therein contained, the said Governor and Company do hereby order, That this Act shall be signed by the Governor and Secretary, and sealed with the Public Seal of this Colony, and registered in the Colony's Records: And that the same, or an Exemplification thereof, shall be

*Signed and  
sealed*

a sufficient Warrant to the said Corporation to hold, use and exercise all the Powers, Franchises, and Immunities herein contained.

*In Conformity to the above Act, SAMUEL WARD, ESQ; Governor, Captain-General, and Commander in Chief, of and over the Colony aforesaid doth hereunto subscribe his Name, and hath caused the Seal of said Colony to be affixed the Twenty-fourth Day of October One Thousand Seven Hundred and Sixty-five, and in the Fifth Year of the Reign of his Most Sacred Majesty George the Third by the Grace of God King of Great Britain, &c.*

SAM: WARD

By His Honor's Command

EDWD THURSTON jun D: Secry.

# ADMISSION TO THE UNIVERSITY†

## METHODS OF ADMISSION TO THE FRESHMAN CLASS§

I. ENTRANCE EXAMINATIONS CONDUCTED BY THE UNIVERSITY. Examinations for admission to the Freshman class are given by the University in September at the times and places indicated below. The University no longer offers entrance examinations in June ; candidates desiring to be examined in June must take the examinations conducted under the supervision of the College Entrance Examination Board, for which see page 42. A candidate may, at his option, take all his examinations in June or in September, or he may take part in June and part in September. Before taking any examination conducted by the University, a candidate must present to the Registrar a letter of recommendation from the principal of his preparatory school and secure a card admitting him to the examination. This may be done by correspondence, provided that the written application and the recommendation are received not less than one week before the date of the first examination.

If a candidate offers subjects in excess of those required for admission, he may be examined in them at the times scheduled below and receive credit for them as college studies.

Any of these examinations may be taken one year before the candidate expects to enter college.

The order of the examinations in 1912 will be as follows :

### WEDNESDAY, SEPTEMBER 18

*Algebra*, 27 Wilson Hall, 8 a.m. to 10 a.m.

*Plane Geometry*, 27 Wilson Hall, 10 a.m. to 12 m.

*Elementary French*, 26 Wilson Hall, 1 p.m. to 3 p.m.

*Advanced French*, 2 Wilson Hall, 3.30 p.m. to 5.30 p.m.

### THURSDAY, SEPTEMBER 19

*English A*, 26 Wilson Hall, 8 a.m. to 10 a.m.

*English B*, 26 Wilson Hall, 10 a.m. to 12 m.

*Elementary Latin*, 25 Wilson Hall, 1 p.m. to 3 p.m.

*Advanced Latin*, 25 Wilson Hall, 3 p.m. to 4.30 p.m.

*American History*, 27 Wilson Hall, 5 p.m. to 7 p.m.

### FRIDAY, SEPTEMBER 20

*Elementary German*, 2 Wilson Hall, 8 a.m. to 10 a.m.

*Advanced German*, 2 Wilson Hall, 10 a.m. to 12 m.

† Students entering in 1912 may offer either the old or the new requirements. After 1912 the new requirements only will be accepted.

§ For methods of making up entrance deficiencies see pages 86, 87.

*Chemistry*, 2 Wilson Hall, 1 p.m. to 3 p.m.

*Astronomy*, 27 Wilson Hall, 3.15 p.m. to 5.15 p.m.

*Physiography*, 27 Wilson Hall, 5.30 p.m. to 7.30 p.m.

SATURDAY, SEPTEMBER 21

*Plane Trigonometry*, 27 Wilson Hall, 8 a.m. to 10 a.m.

*Solid Geometry*, 27 Wilson Hall, 10 a.m. to 12 m.

*Botany*, 2 Wilson Hall, 8 a.m. to 10 a.m.

*Greek and Roman History*, 25 Wilson Hall, 1 p.m. to 3 p.m.

*Physics*, 1 Wilson Hall, 4 p.m. to 6 p.m.

MONDAY, SEPTEMBER 23

*Elementary Greek*, 2 Wilson Hall, 8 a.m. to 10 a.m.

*Advanced Greek*, 2 Wilson Hall, 10 a.m. to 11.30 a.m.

*English History*, 25 Wilson Hall, 12.30 p.m. to 2.30 p.m.

*Medieval and Modern History*, 26 Wilson Hall, 3 p.m. to 5 p.m.

II. ENTRANCE EXAMINATIONS CONDUCTED BY THE COLLEGE ENTRANCE EXAMINATION BOARD. Examinations conducted under the supervision of the College Entrance Examination Board are accepted in place of the corresponding examinations conducted by Brown University. In 1912 these examinations will be held June 17-22.

All applications for these examinations must be addressed to the Secretary of the College Entrance Examination Board, Post Office Sub-Station 84, New York, and must be made upon a blank form to be obtained from the Secretary of the Board. Applications for examination at points in the United States east of the Mississippi River, also at Minneapolis, St. Louis, and other points on the Mississippi River, must be received by the Secretary of the Board on or before Monday, June 3, 1912; applications for examination elsewhere in the United States or in Canada must be received on or before Monday, May 27, 1912; and applications for examinations at points outside the United States and Canada must be received on or before Monday, May 13, 1912. Applications received later than the dates named will be accepted when it is possible to arrange for the examinations of the candidates concerned, but only upon the payment of \$5 in addition to the regular fee.

The examination fee is \$5 for all candidates examined at points in the United States and Canada, and \$15 for all candidates examined at points outside of the United States and Canada. The fee (which cannot be accepted in advance of the application) should be remitted by postal order, express order, or draft on New York, to the order of the College Entrance Examination Board.

A list of the places at which examinations are to be held by the Board in June, 1912, will be published about March 1. Requests that the examinations be held at particular points, to receive proper consideration, should be transmitted to the Secretary of the Board not later than February 1.



**III. ADMISSION BY CERTIFICATE.** In place of examinations, certificates are accepted from any school which has the privilege of issuing certificates to Brown University.

Principals of schools in New England who desire the certificate privilege for Brown University, or for any other college which is a member of the New England College Entrance Certificate Board, should address the Secretary of the Board, Professor Nathaniel F. Davis, 159 Brown Street, Providence, R. I., who will furnish the necessary application blanks. These blanks must be returned to him before April 1 of the year for which the certificate privilege is desired.

Principals of schools situated outside of New England who desire the certificate privilege must make application to the Registrar of the University before May 1, and must furnish satisfactory evidence that the course of study in the school meets the requirements for admission. Blank forms for this purpose will be supplied on request. Certificates from the New York Board of Regents are accepted for the specified subjects so far as they coincide with the entrance requirements of Brown University.

Certificates are accepted for admission to the Freshman class only, not for admission to advanced standing. If any candidate offers subjects in excess of those required for admission, he may be examined in them at the times indicated on pages 41, 42, and receive credit for them as college studies.

Blank forms for the certification of candidates may be obtained from the Registrar by the principals of schools having the privilege of certification. These forms should be filled out and returned to him by July 1. When a student has attended more than one school, a letter of recommendation from the principal of the school last attended must accompany the certificate.

## ENTRANCE REQUIREMENTS FOR THE VARIOUS DEGREES †

**FOR THE DEGREE OF BACHELOR OF ARTS.** In Group I all subjects must be presented. In addition seven points must be presented from Groups II and III. In Group II subjects aggregating at least six points, including at least three points in ancient languages and at least one point in modern languages, must be presented. In Group III one subject may be presented.

**GROUP I.** *English*; see pages 45, 46. *Algebra*; see pages, 46, 47. *Plane Geometry*; see page 47. *Greek and Roman History*; see page 52.

**GROUP II.** *Latin (elementary and advanced)*, 3 points; see page 48. *Greek (elementary)*, 2 points; see page 49. *Greek (advanced)*, 1 point; see page 49. *French (elementary)*, 1 point; see page 49. *French (advanced)*, 1 point; see pages 49,

† Students entering in 1912 have the option of offering the new requirements as described on page 54. After 1912 all candidates for admission must offer the new requirements.

50. *German (elementary)*, 1 point; see pages 50, 51. *German (advanced)*, 1 point; see pages 51, 52.

GROUP III. *Solid Geometry and Plane Trigonometry*, 1 point; see pages 47, 48. *Medieval and Modern History*, or *English History*, or *American History*, 1 point; see page 52. *Physics*, 1 point; see page 52. *Chemistry*, 1 point; see page 53.

FOR THE DEGREE OF BACHELOR OF PHILOSOPHY. In Group I all subjects must be presented. In addition, seven points must be presented from Groups II and III. In Group II two or more languages are required, aggregating at least three points. In Group III free selection is allowed to complete the seven points.

GROUP I. *English*; see pages 45, 46. *Algebra*; see pages 46, 47. *Plane Geometry*; see page 47. *Greek and Roman History*, or *Medieval and Modern History*, or *English History*, or *American History*; see page 52.

GROUP II. *Latin (elementary)*, 2 points; see page 48. *Latin (advanced)*, 1 point; see page 48. *Greek (elementary)*, 2 points; see page 49. *Greek (advanced)*, 1 point; see page 49. *French (elementary)*, 1 point; see page 49. *French (advanced)*, 1 point; see pages 49, 50. *German (elementary)*, 1 point; see pages 50, 51. *German (advanced)*, 1 point; see pages 51, 52.

GROUP III. *Solid Geometry and Plane Trigonometry*, 1 point; see pages 47, 48. *History (any one of the four divisions not presented in Group I)*, 1 point; see page 52. *Physics*, 1 point; see page 52. *Chemistry*, 1 point; see page 53. *Astronomy*, 1 point; see page 53. *Physiography*, 1 point; see page 53.

FOR THE DEGREE OF BACHELOR OF SCIENCE IN CIVIL ENGINEERING, MECHANICAL ENGINEERING, OR ELECTRICAL ENGINEERING.‡ In Group I all subjects must be presented. In addition, four subjects must be presented from Groups II and III. In Group II at least three subjects must be presented. The fourth subject may be presented from either Group II or Group III.

GROUP I. *English*; see pages 45, 46. *Algebra*; see pages 46, 47. *Plane Geometry*; see page 47. *Solid Geometry*; see page 47. *Greek and Roman History*, or *Medieval and Modern History*, or *English History*, or *American History*; see page 52.

GROUP II. *French (elementary)*; see page 49. *French (advanced)*; see pages 49, 50. *German (elementary)*; see pages 50, 51. *German (advanced)*; see pages 51, 52. *Chemistry*; see page 53.

GROUP III. *Latin (elementary)*; see page 48. *Greek (elementary)*; see page 49. *Physics*; see page 52. *History (any one of the four divisions not presented*

‡ The Degree of Bachelor of Science is given in Brown University only for engineering courses. The work is mainly technical and offers no freedom of election.

in Group I); see page 52. *Astronomy*; see page 53. *Physiography*; see page 53. *Botany*; see page 54.

Applicants for admission who have had extensive training in freehand drawing, and who, by presentation of properly certified plates to the Committee on Registration and Attendance give evidence of exceptional ability in this work, may offer freehand drawing in place of any one of the subjects in Group III.

## ENTRANCE REQUIREMENTS IN THE SEVERAL SUBJECTS

I. ENGLISH. Preparation in English has two main objects: (1) command of correct and clear English, spoken and written; (2) ability to read with accuracy, intelligence, and appreciation. As training which will further these two ends, the candidate is required to pursue work in English grammar and composition, and to read a certain number of prescribed books.

The grammatical knowledge expected of the candidate includes simple grammatical terminology, inflections, and syntax. He should be able to spell, punctuate, and capitalize correctly, to use words properly, and to write clear and correct sentences and coherent paragraphs. In general this requires a review of grammar in the secondary school, regular practice in oral and written composition under criticism from the teacher throughout the four years of the secondary school course, and the coöperation of teachers of other subjects in the effort to secure good English in all recitations and written exercises.

The prescribed reading is divided into two parts: (1) books for reading; (2) books for study. The books in the first part the candidate should read carefully enough to grasp their meaning and to answer simple questions upon their content and style; but he should not pay such attention to details that the reading becomes a task. The books in the second part are to be treated with more attention to details of substance and form. The candidate should be able to explain the exact meaning of words, phrases, and allusions of which a definite knowledge is essential to understanding the text; to give a sensible, untechnical criticism of the structure and style; and to know such facts about the authorship, origin, and purpose of the works read as may be necessary to real understanding of them. He should also have a knowledge, definite but not highly detailed, of the lives of the authors of the books prescribed for study and of their place in literary history. Reading aloud, under criticism from the teacher, and the memorizing of some notable passages in prose and verse, are recommended. The candidate is also urged to do as much additional reading as possible; certified lists of such reading may be submitted as part of the evidence of the candidate's fitness.

The examination is divided into two parts, which may be taken at different times. The first part covers the work in grammar and composition and

the books prescribed for reading. It includes (1) questions upon grammar and usage; (2) questions upon the substance and style of the books prescribed for reading; (3) a brief composition on some topic assigned, usually a topic not connected with the prescribed reading. The second part is devoted to the books prescribed for study. It includes (1) questions upon the content, structure, and style of these books; (2) questions upon the authors' lives and their place in literary history.

The requirement of the College Entrance Examination Board in English is accepted as an equivalent of the requirement in English. Candidates who have credit for only part *a* of the Board examination must take part *b* of the Brown University examination, and also answer the questions upon grammar and usage in part *a* of the Brown University examination; those who have credit for only part *b* of the Board examination must take part *a* of the Brown University examination.

The books prescribed for reading are as follows:

FOR STUDENTS ENTERING IN 1912: † Shakspeare's *As You Like It* and *Julius Caesar*; Franklin's *Autobiography*; Goldsmith's *Deserted Village*; Dickens's *Tale of Two Cities*; George Eliot's *Silas Marner*; Irving's *Sketch Book*; Scott's *Lady of the Lake*; Byron's *Mazeppa* and *The Prisoner of Chillon*; Macaulay's *Lays of Ancient Rome*.

FOR STUDENTS ENTERING IN 1913, 1914, AND 1915, see lists on pages 56, 57, 58.

The books prescribed for study are as follows:

FOR STUDENTS ENTERING IN 1912: Shakspeare's *Macbeth*; Milton's *Comus*, *L'Allegro*, and *Il Penseroso*, or Tennyson's *Gareth and Lynette*, *Lancelot and Elaine*, and *The Passing of Arthur*; Burke's *Speech on Conciliation with America*, or Washington's *Farewell Address* and Webster's *First Bunker Hill Oration*; Macaulay's *Life of Johnson* or Carlyle's *Essay on Burns*.

FOR STUDENTS ENTERING IN 1913, 1914, AND 1915, see lists on pages 56, 57, 58.

II. ALGEBRA. § The requirement in Algebra covers the work through equations of the second degree, including the following subjects: the four fundamental operations for rational algebraic expressions; factoring, determination

† The lists for the classes entering in 1912 are selected from the list adopted by the Conference on Uniform Entrance Requirements in English. Candidates may present other selections from that list, provided they notify the Registrar, on or before the first day of August preceding the examination, of the substitutions they wish to make.

§ Although candidates are not examined in Arithmetic, a knowledge of its fundamental principles and a careful training in accurate computation with whole numbers and with vulgar and decimal fractions are regarded as essential parts of a preparatory course.

The school curriculum should be so arranged that no term shall pass without some time being given to a mathematical subject, and that both Algebra and Geometry shall be taken either in review or in advance during the last year of the course. For a four-year course an average of two and one-half hours a week should be given to mathematics.

of highest common factor and lowest common multiple by factoring; fractions, including complex fractions, and ratio and proportion; linear equations, both numerical and literal, containing one or more unknown quantities; problems depending on linear equations; radicals, including the extraction of the square root of polynomials and of numbers; exponents, including the fractional and negative; quadratic equations, both numerical and literal; simple cases of equations with one or more unknown quantities, that can be solved by the methods of linear or quadratic equations; the binomial theorem for positive integral exponents; the formulae for the  $n$ th term and the sum of terms of arithmetical and geometric progressions, with applications.

It is assumed that pupils will be required throughout the course to solve numerous problems which involve putting questions into equations. Some of these problems should be chosen from mensuration, from physics, and from commercial life. The use of graphical methods and illustrations, particularly in connection with the solution of equations, is also expected.

This requirement is that of the College Entrance Examination Board in Mathematics *a* (i and ii).

**III. PLANE GEOMETRY.** ‡ The requirement in Plane Geometry covers the usual theorems and constructions of good text-books, including the general properties of plane rectilinear figures; the circle and the measurement of angles; similar polygons; areas; regular polygons and the measurement of the circle; the solution of numerous original exercises, including loci problems; applications to the mensuration of lines and plane surfaces.

Teachers of Geometry should lay stress on accuracy of statement and elegance of form as well as on clear and strict reasoning. Mere memorizing should be avoided. Special care should be taken that in the proof of a proposition no lines be drawn unless their construction is proved to be possible.

This requirement is that of the College Entrance Examination Board in Mathematics *c*.

**IV. SOLID GEOMETRY.** The requirement in solid Geometry covers the usual theorems and constructions of good text-books, including the relations of planes and lines in space; the properties and measurement of prisms, pyramids, cylinders, and cones; the sphere and the spherical triangle; the solution of numerous original exercises, including loci problems; applications to the mensuration of surfaces and solids.

This requirement is that of the College Entrance Examination Board in Mathematics *d*.

‡ Although candidates are not examined in Arithmetic, a knowledge of its fundamental principles and a careful training in accurate computation with whole numbers and with vulgar and decimal fractions are regarded as essential parts of a preparatory course.

The school curriculum should be so arranged that no term shall pass without some time being given to a mathematical subject, and that both Algebra and Geometry shall be taken either in review or in advance during the last year of the course. For a four-year course an average of two and one-half hours a week should be given to mathematics.

V. PLANE TRIGONOMETRY. The requirement in Plane Trigonometry includes definitions and relations of the six trigonometric functions as ratios; circular measurement of angles; proofs of principal formulae, in particular for the sine, cosine, and tangent of the sum and difference of two angles, of the double angle and half angle, the product expressions for the sum or the difference of two sines or of two cosines, etc.; the transformation of trigonometric expressions by means of these formulae; the solution of trigonometric equations of a simple character; the theory and use of logarithms (without the introduction of work involving infinite series); the solution of right and oblique triangles; practical applications.

This requirement is that of the College Entrance Examination Board in Mathematics *f*.

VI. ELEMENTARY LATIN. The Latin reading without the prescription of particular authors and works shall not be less in amount than Caesar, *Gallie War*, 1-iv; Cicero, the orations against Catiline, for the Manilian Law, and for Archias. The reading shall be selected from the following authors and works: Caesar, *Gallie War* and *Civil War*, and Nepos, *Lives*; Cicero, orations, letters, and *De Senectute*, and Sallust, *Catiline* and *Jugurthine War*.

Candidates will be examined in translation at sight of passages from Caesar and Cicero. The vocabulary, constructions, and range of ideas of the passages set will be suited to the preparation secured by the reading indicated above. They will be examined also upon the following prescribed reading: Cicero, orations for the Manilian Law and for Archias.

The examinations in grammar and composition will demand thorough knowledge of all regular inflections, all common irregular forms, and the ordinary syntax and vocabulary of the prose authors read in school, with ability to use this knowledge in writing simple Latin prose.

The words, constructions, and range of ideas called for in the examination in composition will be such as are common in the reading of the years covered by the examination.

This requirement is practically the same as that of the College Entrance Examination Board in Latin *NR 1*, *NR 2*, *NR 4*.

VII. ADVANCED LATIN. The Latin reading shall not be less in amount than Vergil, *Aeneid*, Books 1-vi. This reading shall be selected from Vergil, *Bucolics*, *Georgics*, and *Aeneid*, and Ovid, *Metamorphoses*, *Fasti*, and *Tristia*.

Candidates will be examined in translation at sight of passages from Vergil and Ovid. They will be examined also upon the following prescribed reading: Vergil, *Aeneid*, Books 1, 11, and either iv or vi, at the option of the candidate.

This requirement is practically the same as that of the College Entrance Examination Board in Latin *NR 5*.

VIII. ELEMENTARY GREEK. The requirement in Elementary Greek includes: (1) Xenophon's *Anabasis*, Books i-iv, with attention not only to language, but to subject-matter as well; (2) grammar, including a familiar knowledge of inflection, word-formation, and ordinary syntax. This will be tested by: (a) questions upon a passage from the *Anabasis*; (b) translation into Greek, with accents, of simple English sentences.

This requirement is the same as that of the College Entrance Examination Board in Greek *a* (i and ii), *b*, *g*.

IX. ADVANCED GREEK. The requirement in Advanced Greek includes: (1) three books of Homer's *Iliad* or *Odyssey*, with questions upon meter, Homeric dialect, etc., or (upon request four weeks in advance of the examination) an equivalent amount of a prose author; (2) translation at sight of simple Attic prose or Homer; (3) translation into Greek, with accents, of a continuous passage of English narrative, based upon material similar to the *Anabasis*.

This requirement is the same as that of the College Entrance Examination Board in Greek *c*, *f*, *h*.

X. ELEMENTARY FRENCH. Candidates presenting Elementary French should be able to pronounce French accurately, to read at sight easy French prose, to put into French simple English sentences taken from the language of every-day life or based upon a portion of the French text read, and to answer questions upon the rudiments of grammar.

The work of preparation should include: (1) careful drill in pronunciation; (2) the rudiments of grammar, including the inflection of the regular and more common irregular verbs, plural nouns, adjectives, participles, and pronouns; the partitive constructions; the order of words in the sentence, and the elementary rules of syntax, including the simpler uses of the conditional and the subjunctive; (3) abundant easy exercises, designed not only to fix in the memory the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression; (4) the reading of from 250 to 400 duodecimo pages of easy modern prose in the form of stories, plays, or historical or biographical sketches, with constant practice in translating into French easy variations upon the texts read. Suitable elementary texts are: Daudet's easier short stories, Ereckmann-Chatrian's stories, Enault's *Le chien du capitaine*, Foa's *Contes biographiques* and *Le petit Robinson*, Labiche and Martin's *La poudre aux yeux* and *Le voyage de M. Perrichon*, Laurie's *Mémoires d'un collégien*, Féval's *La fée des grèves*, Mérimée's *Colomba*, extracts from Michelet, Sarcy's *Siège de Paris*, Verne's stories.

The requirement of the College Entrance Examination Board in French *a* is accepted as an equivalent of the requirement in Elementary French.

XI. ADVANCED FRENCH. Candidates presenting Advanced French should be able to read at sight ordinary French prose or simple poetry, to translate

into French a connected passage of English based on the text read, and to answer questions involving a more thorough knowledge of syntax than is expected in the elementary course.

The work should include the reading of from 250 to 400 pages (in addition to the amount read for the elementary requirement) of French of ordinary difficulty, of which a portion should be in the dramatic form; constant practice in giving French paraphrases, abstracts, or reproductions from memory of selected portions of the matter read; the study of a grammar of moderate completeness; writing from dictation. Suitable texts are: About's stories, Augier and Sandeau's *Le gendre de M. Poirier*, Béranger's poems, Daudet's *La Belle Nivernaise*, La Brète's *Mon oncle et mon curé*, Madame de Sévigné's letters, Anatole France's *Le crime de Sylvestre Bonnard* and *Le livre de mon ami*, Pailleron's *Le monde où l'on s'ennuie*, Hugo's *La chute*, Loti's *Pêcheur d'Islande*, Sandeau's *Mademoiselle de la Seiglière*, Thiers's *L'expédition de Bonaparte en Egypte*, de Vigny's *La canne de jonc*, Coppée's poems, de Maupassant's stories.

The requirement of the College Entrance Examination Board in French b is accepted as an equivalent of the requirement in Advanced French.

**XII. ELEMENTARY GERMAN.** Candidates presenting Elementary German should be able to read at sight and to translate a passage of very easy dialogue or narrative prose, help being given upon unusual words and constructions; to put into German short English sentences taken from the language of every-day life or based upon the text given for translation; and to answer questions upon the rudiments of the grammar.

Two years should be given to preparation in this subject. During the first year the work should include: (1) careful drill upon pronunciation; (2) the memorizing and frequent repetition of easy colloquial sentences; (3) drill upon the rudiments of grammar, including the inflection of the articles, of such nouns as belong to the language of every-day life, of adjectives, pronouns, weak verbs, and the more common strong and irregular verbs; also upon the use of the more common prepositions, the simpler uses of the modal auxiliaries, and the elementary rules of syntax and word-order; (4) easy exercises designed not only to fix in mind the forms and principles of grammar, but also to cultivate readiness in the oral and written reproduction of ordinary forms of expression; (5) the reading of about 75 pages of graduated texts from a reader, with constant practice in translating into German easy variations upon sentences selected from the reading lesson and in the reproduction from memory of sentences previously read; (6) the ability to understand and reproduce at hearing simple German prose.

During the second year the work should include: (1) the reading of about 125 pages of literature in the form of easy stories and plays; (2) practice in the translation into German of easy variations upon the matter read and in the reproduction, sometimes orally and sometimes in writing, of the substance of short and easy selected passages; (3) continued drill upon the rudiments



of the grammar with special emphasis on the declension of adjectives and on word-order, directed to the end of enabling the pupil to use his knowledge with facility in simple written and oral expression. A part of all entrance examinations in German will be devoted to an oral test.

Stories suitable for the second year of the elementary course can be selected from the following list: Andersen's *Märchen* and *Bilderbuch ohne Bilder*; Arnold's *Fritz auf Ferien*; Baumbach's *Der Fiedelbogen des Neck* and *Der Schwiegersohn*; Gerstäcker's *Germelshausen*; Heyse's *L'Arrabbiata*, *Das Mädchen von Treppi*, and *Anfang und Ende*; Hillern's *Höher als die Kirche*; Jensen's *Die braune Erica*; Leander's *Träumereien* and *Kleine Geschichten*; Seidel's *Märchen*; Stökl's *Unter dem Christbaum*; Storm's *In St. Jürgen* and *Geschichten aus der Tonne*. Among the available plays are Benedix's *Der Prozess*, *Der Weiberfeind*, and *Günstige Vorzeichen*; Fulda's *Unter vier Augen*; Wichert's *An der Majorsecke*; Wilhelm's *Einer muss heiraten*. It is recommended, however, that not more than one play be read; the narrative style should predominate. A satisfactory selection would be: about forty pages of Andersen's *Märchen* or *Bilderbuch*, or Leander's *Träumereien*, or Hillern's *Höher als die Kirche*; a story by Heyse, Baumbach, Storm, or Seidel; and Benedix's *Der Prozess*.

The requirement of the College Entrance Examination Board in German is accepted as an equivalent of the requirement in Elementary German.

**XIII. ADVANCED GERMAN.** Candidates presenting Advanced German should be able to read at sight German prose of ordinary difficulty, whether modern or classical; to put into German a connected passage of simple English paraphrased from a given text in German; to answer any grammatical questions relating to the usual forms and essential principles of the language, including syntax and word-formation; to translate and explain (so far as explanation may be necessary) a passage of classical or modern literature taken from some text previously studied; to understand and reproduce at hearing fairly difficult German prose.

The work should include, in addition to the elementary course, the reading of about 300 pages of moderately difficult prose and poetry, with constant practice in giving, sometimes orally and sometimes in writing, paraphrases, abstracts, or reproductions from memory of selected portions of the matter read; also grammatical drill upon the less usual strong verbs, the use of articles, cases, auxiliaries of all kinds, tenses and modes (with special reference to the infinitive and the subjunctive), and word-order and word-formation.

Suitable reading matter can be selected from such works as the following: Ebner-Eschenbach's *Die Freiherren von Gempferlein*; Freytag's *Bilder aus der deutschen Vergangenheit*, — for example, *Karl der Grosse*, *Aus den Kreuzzügen*, *Doktor Luther*, *Aus dem Staat Friedrichs des Grossen*; Fouqué's *Undine*; Goethe's *Hermann und Dorothea* and *Egmont*; Heine's poems and *Reisebilder*; Lessing's *Minna von Barnhelm*; Meyer's *Der Heilige*; Moser's *Der Bibliothekar*.

kar; Richl's *Novellen*,—for example, *Burg Neideck*, *Der Fluch der Schönheit*, *Der stumme Ratsherr*, *Das Spielmannskind*; Rosegger's *Waldheimat*; Schiller's *Wilhelm Tell*, *Die Jungfrau von Orleans*, *Das Lied von der Glocke*, *Balladen*; Uhland's poems; Wildenbruch's *Das edle Blut*; Keller's *Romeo und Julia auf dem Dorfe*; Liliencron's *Anno 1870*; Fulda's *Der Talisman*; Grillparzer's *Sappho*.

The requirement of the College Entrance Examination Board in German *b* is accepted as an equivalent of the requirement in advanced German.

**XIV. HISTORY.** The requirement in any of the historical fields named below demands such knowledge as may be acquired from the study of a good modern text-book of not less than 300 pages, supplemented by not less than 300 pages of suitable parallel reading. Questions on historical geography will be included in the examination. For preparation in either 1, 2, 3, or 4, a course of study equivalent to at least three lessons a week for one year is necessary.

No candidate will be allowed to present more than two of the four divisions.

1. Greek and Roman history: (a) Greek history to the death of Alexander, with due reference to Greek life, literature, and art; (b) Roman history to the end of the reign of Marcus Aurelius, with due reference to literature and government.

2. Medieval and Modern European history from the time of the barbarian invasions to the present.

3. English history, with due reference to political and social development and to international relations.

4. American history, including the elements of Civil Government.

The requirements of the College Entrance Examination Board in History are accepted as equivalents of the requirements in History.

**XV. PHYSICS.** The candidate's preparation in Physics should include (1) the study of at least one standard text-book, supplemented by the use of many and varied numerical problems, to the end that the pupil may gain a comprehensive and connected view of the most important facts and laws in elementary physics; (2) instruction, by lecture-table demonstrations, upon the general principles involved in the pupil's laboratory investigations; (3) individual laboratory work comprising at least thirty-five exercises. Every candidate must present, as a part of the examination, a note-book, certified by the teacher, containing in the candidate's own language a description of his laboratory exercises, with a careful record of the steps, observations, and results of each exercise. The note-book must afford clear evidence of the pupil's ability to make accurate observations and to draw direct conclusions.

Students who offer Physics for entrance will be permitted to enter the more advanced courses if, on consultation with the officers of the department, they are found to have the requisite qualifications.

The requirement of the College Entrance Examination Board in Physics is accepted as an equivalent of the requirement in Physics.

**XVI. CHEMISTRY.**‡ The requirement in Chemistry includes a knowledge of the more important non-metals and their principal combinations, about ten important metals and their principal salts, the more important topics of chemical philosophy, chemical nomenclature and notation, and the ordinary methods of stoichiometry. Candidates should have personally performed about one hundred simple experiments (those in Appleton's *Young Chemist* are mentioned as illustrations, but equivalents will be accepted). Every candidate must present, as a part of the examination, a note-book, certified by the teacher, containing in the candidate's own language a description of his laboratory exercises, with a careful record of the steps, observations, and results of each exercise. A course accomplishing the preparation above outlined will require an amount of time equivalent to three hours a week for one school year.

The requirement of the College Entrance Examination Board in Chemistry is accepted as an equivalent of the requirement in Chemistry.

**XVII. ASTRONOMY.** The requirement in Astronomy demands class instruction for the equivalent of three hours a week for a school year in the elementary principles of the science, including observations of the heavens with reference to the positions and movements of the heavenly bodies. The following are the chief topics to be studied: *The Celestial Sphere*; designation of the directions of a heavenly body. *The Earth*; its axial rotation; time, latitude, longitude; its orbital revolution; precession; aberration, the seasons, equation of time, the calendar. *The Moon*; its axial rotation, orbital motion, librations, phases, surface features, physical condition; lunar and solar eclipses. *The Sun*; its rotation, physical characteristics, light, and heat. *The Planets*; apparent and real motions, individual characteristics. *The Law of Gravitation*; its control of the solar system; the tides. *Comets and Meteors*; their nature and motions. *The Stars*; designation, classification by constellations, motions, distance, brightness, variables. *Stellar Systems*; clusters, nebulae; the stellar universe, cosmogony.

As no examination in Astronomy is given by the College Entrance Examination Board, the examination in this subject must be taken in September at Brown University; see page 42.

**XVIII. PHYSIOGRAPHY.** The requirement in Physiography demands a thorough knowledge of the elementary principles as found in a standard text-book. The equivalent of a year's work of three hours a week is expected. The work should include the study of oceans, atmosphere, climate, weather, rivers; of land forms, their geographical distribution and classification, their origin, growth, and decay; and some study of the interrelation of man and nature. Properly attested reports of field and laboratory work will be credited if submitted at the time of examination.

The requirement of the College Entrance Examination Board in Geography is accepted as an equivalent of the requirement in Physiography.

‡ For admission to Chemistry 3, 4, see page 99.

XIX. BOTANY. The requirement in Botany demands an amount of work equivalent to that outlined in the "briefer course" in Bergen and Davis's *Laboratory and Field Manual of Botany* and *Principles of Botany*, or to that indicated in Bergen's *Elements of Botany*, or Bergen's *Essentials of Botany*. Properly attested laboratory notes and drawings made in connection with the course must be submitted at the time of the examination.

The requirement of the College Entrance Examination Board in Botany is accepted as an equivalent of the requirement in Botany.

## NEW ENTRANCE REQUIREMENTS FOR THE VARIOUS DEGREES

**S**TUDENTS entering in 1912 may offer either the old or the new requirements. After 1912 the new requirements only will be accepted.

UNITS OF ENTRANCE REQUIREMENTS, A unit represents a year's study in any subject in a secondary school constituting approximately a quarter of a full year's work.

This statement is designed to afford a standard of measurement for the work done in secondary schools. It takes the four-year high school course as a basis, and assumes that the length of the school year is from thirty-six to forty weeks, that a period is from forty to sixty minutes in length, and that the study is pursued for four or five periods a week; but under ordinary circumstances, a satisfactory year's work in any subject cannot be accomplished in less than one hundred and twenty sixty-minute periods or their equivalent. Schools organized on any other than a four-year basis can, nevertheless, estimate their work in terms of this unit.

The scale of values of admission requirements in terms of units is as follows, and is identical with that adopted by the College Entrance Examination Board:

	<i>Units</i>		<i>Units</i>
English <i>a</i>	2	Elementary French	2
English <i>b</i>	1	Intermediate French	1
Ancient History	1	Elementary German	2
Medieval and Modern European History	1	Intermediate German	1
English History	1	Algebra	1½
American History and Civil Government	1	Plane Geometry	1
Elementary Latin	3	Solid Geometry	½
Advanced Latin	1	Plane Trigonometry	¾
‡ Two-year Latin	2	Physics	1
Elementary Greek	2	Chemistry	1
Advanced Greek	1	‡ Botany	1
		Physiography	1

‡ Botany and two-year Latin may be presented by candidates for the degree of Bachelor of Science only. See pages 60, 62.

FOR THE DEGREE OF BACHELOR OF ARTS OR BACHELOR OF PHILOSOPHY. Candidates must present fourteen and one-half units from the subjects described on pages 55-68. Not more than two units may be offered in History without special permission from the Committee on Registration and Attendance. If Latin is presented, it must be for at least three units (see page 60); if Greek, for at least two units (see page 61). Solid Geometry and Plane Trigonometry must be presented together. A substitute for an optional subject may be accepted if the Committee is convinced that it is a full equivalent.

Candidates for the degree of Bachelor of Arts must present English, Algebra, Plane Geometry, Greek and Roman History, and eight units in addition, seven of which must be in languages other than English, and must include the elementary and advanced requirements in at least one ancient language.

Candidates for the degree of Bachelor of Philosophy must present English, Algebra, Plane Geometry, one unit in History, and eight units in addition, of which five must be in languages other than English, and must include one modern language.

FOR THE DEGREE OF BACHELOR OF SCIENCE.‡ Candidates must present twelve units from the subjects described on pages 55-68. These must include English, Algebra, Plane Geometry, Solid Geometry, one unit in History, and five units in addition, three of which must be in French, German, or Chemistry, or in any two of them.

By special permission of the Committee on Registration and Attendance, other subjects, not included in the list, may be presented for two units.

## ENTRANCE REQUIREMENTS IN THE SEVERAL SUBJECTS§

ENGLISH. *Three units.* Preparation in English has two main objects: (1) command of correct and clear English, spoken and written; (2) ability to read with accuracy, intelligence, and appreciation.

GRAMMAR AND COMPOSITION. The first object requires instruction in grammar and composition. English grammar should ordinarily be reviewed in the secondary school; and correct spelling and grammatical accuracy should be rigorously exacted in connection with all written work during the four years. The principles of English composition governing punctuation, the use of words, paragraphs, and the whole composition should be carefully studied; and practice in composition, oral as well as written, should extend throughout the secondary school period. Written exercises may well comprise narration,

‡ The Degree of Bachelor of Science is given in Brown University only for engineering courses. The work is mainly technical and offers no freedom of election.

§ The following statements are condensations of those in the Report of the College Entrance Examination Board. Teachers are advised to consult this report.

description, and easy exposition and argument based upon simple outlines. It is advisable that subjects for this work be taken from the student's personal experience, general knowledge, and studies other than English, as well as from his reading in literature. Finally, special instruction in language and composition should be accompanied by concerted effort of teachers in all branches to cultivate in the student the habit of using good English in his recitations and various exercises, whether oral or written.

**LITERATURE.** In the pursuit of the second object the student is required to read certain books chosen from two lists, headed respectively *Reading* and *Study*. In connection with both lists the student should be trained in reading aloud, and should be encouraged to commit to memory some of the more notable passages both in verse and in prose.

### *a. Reading*

The aim of this part of the requirement is to foster in the student the habit of intelligent reading and to develop a taste for good literature. He should read the books carefully, but his attention should not be so fixed upon details that he fails to appreciate the main purpose and the charm of what he reads.

The books prescribed for reading are as follows:

For Students entering in 1912: Shakspeare's *As You Like It* and *Julius Caesar*; Franklin's *Autobiography*; Goldsmith's *Deserted Village*; Dickens's *Tale of Two Cities*; George Eliot's *Silas Marner*; Irving's *Sketch Book*; Scott's *Lady of the Lake*; Byron's *Mazeppa* and *The Prisoner of Chillon*; Macaulay's *Lays of Ancient Rome*.

For Students entering in 1913, 1914, and 1915, the books are arranged in the following groups, from which at least ten units are to be selected, two from each group:

1. The *Old Testament*, comprising at least the chief narrative episodes in Genesis, Exodus, Joshua, Judges, Samuel, Kings, and Daniel, together with the books of Ruth and Esther; the *Odyssey*, with the omission, if desired, of Books I, II, III, IV, V, XV, XVI, XVII; the *Iliad*, with the omission, if desired, of Books XI, XIII, XIV, XV, XVII, XXI; Vergil's *Aeneid*. The *Odyssey*, *Iliad*, and *Aeneid* should be read in English translations of recognized literary excellence.

For any unit of this group a unit from any other group may be substituted.

2. Shakspeare's *Merchant of Venice*; *Midsummer Night's Dream*; *As You Like It*; *Twelfth Night*; *Henry the Fifth*; *Julius Caesar*.

3. Defoe's *Robinson Crusoe*, Part I; Goldsmith's *Vicar of Wakefield*; Scott's *Ivanhoe* or *Quentin Durward*; Hawthorne's *House of the Seven Gables*; Dickens's *David Copperfield* or *Tale of Two Cities*; Thackeray's *Henry*

*Esmond*; Mrs. Gaskell's *Cranford*; George Eliot's *Silas Marner*; Stevenson's *Treasure Island*.

4. Bunyan's *Pilgrim's Progress*, Part I; *The Sir Roger de Coverley Papers* in *The Spectator*; Franklin's *Autobiography* (condensed); Irving's *Sketch Book*; Macaulay's *Essays on Lord Clive and Warren Hastings*; Thackeray's *English Humourists*; *Selections* from Lincoln, including at least the two Inaugurals, the Speeches in Independence Hall and at Gettysburg, the Last Public Address, and the Letter to Horace Greeley, along with a brief memoir or estimate; Parkman's *Oregon Trail*; either Thoreau's *Walden*, or Huxley's *Autobiography* and selections from *Lay Sermons*, including the addresses on Improving Natural Knowledge, A Liberal Education, and A Piece of Chalk; Stevenson's *Inland Voyage* and *Travels with a Donkey*.

5. Palgrave's *Golden Treasury* (First Series), Books II and III, with special attention to Dryden, Collins, Gray, Cowper, and Burns; Gray's *Elegy in a Country Churchyard* and Goldsmith's *Deserted Village*; Coleridge's *Ancient Mariner* and Lowell's *Vision of Sir Launfal*; Scott's *Lady of the Lake*; Byron's *Childe Harold*, Canto IV, and *Prisoner of Chillon*; Palgrave's *Golden Treasury* (First Series), Book IV, with especial attention to Wordsworth, Keats, and Shelley; Poe's *Raven*, Longfellow's *Courtship of Miles Standish*, and Whittier's *Snow-Bound*; Macaulay's *Lays of Ancient Rome* and Arnold's *Sohrab and Rustum*; Tennyson's *Gareth and Lynette*, *Lancelot and Elaine*, and *The Passing of Arthur*; Browning's *Cavalier Tunes*, *The Lost Leader*, *How They Brought the Good News from Ghent to Aix*, *Home Thoughts from Abroad*, *Home Thoughts from the Sea*, *Incident of the French Camp*, *Hervé Riel*, *Pheidippides*, *My Last Duchess*, *Up at a Villa—Down in the City*.

### b. Study

This part of the requirement is intended as a natural and logical continuation of the student's earlier reading. Greater stress is laid upon form and style, the exact meaning of words and phrases, and the understanding of allusions. For this close reading are provided a play, a group of poems, an oration, and an essay, as follows:

For Students entering in 1912: Shakspeare's *Macbeth*; Milton's *L'Allegro*, *Il Penseroso*, and *Comus*, or Tennyson's *Gareth and Lynette*, *Lancelot and Elaine*, and *The Passing of Arthur*; Burke's *Speech on Conciliation with America*, or Washington's *Farewell Address* and Webster's *First Bunker Hill Oration*; Macaulay's *Life of Johnson*, or Carlyle's *Essay on Burns*.

For Students entering in 1913, 1914, and 1915: Shakspeare's *Macbeth*; Milton's *L'Allegro*, *Il Penseroso*, and *Comus*; Burke's *Speech on Conciliation with America*, or Washington's *Farewell Address* and Webster's *First*

*Bunker Hill Oration; Macaulay's Life of Johnson, or Carlyle's Essay on Burns.*

The examination will be divided into two parts, the first of which (English *a*, two units) may be taken as a preliminary, the second (English *b*, one unit) as a final.

The first part of the examination will be upon ten units chosen, in accordance with the plan described earlier, from the lists headed *Reading*; it will include also questions upon grammar and the simpler principles of rhetoric, and a short composition upon some topic drawn from the student's general knowledge or experience. On the books prescribed for reading, the examination will usually consist of the writing of short paragraphs on several topics which the candidate may choose out of a considerable number. These topics will involve such knowledge and appreciation of plot, character-development, and other qualities of style and treatment as may be fairly expected of boys and girls. In grammar and rhetoric, the candidate will be asked specific questions upon the practical essentials of these studies, such as the relation of the various parts of a sentence to one another, the construction of individual words in a sentence of reasonable difficulty, and those good usages of modern English which one should know in distinction from current errors.

The second part of the examination will be upon the books prescribed for study. It will consist of questions upon their content, form, and structure, and upon the meaning of such words, phrases, and allusions as may be necessary to an understanding of the works and an appreciation of their salient qualities of style. General questions may also be asked concerning the lives of the authors, their other works, and the periods of literary history to which they belong.

However accurate in subject-matter, no paper will be considered satisfactory if seriously defective in punctuation, spelling, or other essentials of good usage.

The requirement is the same as that of the College Entrance Examination Board in English except with respect to the division of the examination. Candidates in 1912 who have credit for only part *a* of the Board examination must take part *b* of the Brown University examination, and also answer the questions upon grammar and usage in part *a* of the Brown University examination; those who have credit for only part *b* of the Board examination must take part *a* of the Brown University examination. After 1912 the Brown University requirement and the Board requirement will be identical.

**MATHEMATICS. ALGEBRA.** *One and one-half units.* The requirement in Algebra covers the work through equations of the second degree, including the following subjects: the four fundamental operations for rational algebraic expressions; factoring, determination of highest common factor and lowest common multiple by factoring; fractions, including complex fractions, and ratio and proportion; linear equations, both numerical and literal, containing one or more unknown quantities; problems depending on linear equations;



radicals, including the extraction of the square root of polynomials and of numbers; exponents, including the fractional and negative; quadratic equations, both numerical and literal; simple cases of equations with one or more unknown quantities, that can be solved by the methods of linear or quadratic equations; the binomial theorem for positive integral exponents; the formulae for the  $n$ th term, and the sum of the terms, of arithmetical and geometric progressions, with applications.

It is assumed that pupils will be required throughout the course to solve numerous problems which involve putting questions into equations. Some of these problems should be chosen from mensuration, from physics, and from commercial life. The use of graphical methods and illustrations, particularly in connection with the solution of equations, is also expected.

This requirement is the same as that of the College Entrance Examination Board in Mathematics a (i and ii).

**PLANE GEOMETRY.** *One unit.* The requirement in Plane Geometry includes the usual theorems and constructions of good text-books, including the general properties of plane rectilinear figures; the circle and the measurement of angles; similar polygons; areas; regular polygons and the measurement of the circle; the solution of numerous original exercises, including loci problems; applications to the mensuration of lines and plane surfaces.

Teachers of Geometry should lay stress on accuracy of statement and elegance of form as well as on clear and strict reasoning. Mere memorizing should be avoided. Special care should be taken that in the proof of a proposition no lines be drawn unless their construction is proved to be possible.

This requirement is the same as that of the College Entrance Examination Board in Mathematics c.

**SOLID GEOMETRY.** *One-half unit.* The requirement in Solid Geometry covers the usual theorems and constructions of good text-books, including the relations of planes and lines in space; the properties and measurement of prisms, pyramids, cylinders, and cones; the sphere and the spherical triangle; the solution of numerous original exercises, including loci problems; applications to the mensuration of surfaces and solids.

This requirement is the same as that of the College Entrance Examination Board in Mathematics d.

**PLANE TRIGONOMETRY.** *One-half unit.* The requirement in Plane Trigonometry includes definitions and relations of the six trigonometric functions as ratios; circular measurement of angles; proofs of principal formulae, in particular for the sine, cosine, and tangent of the sum and difference of two angles, of the double angle and half angle, the product expressions for the sum or the difference of two sines or of two cosines, etc.; the transformation of trigonometric expressions by means of these formulae; the solution of trigonometric equations of a simple character; the theory and use of logarithms

(without the introduction of work involving infinite series); the solution of right and oblique triangles; practical applications.

This requirement is the same as that of the College Entrance Examination Board in Mathematics *f*.

**LATIN. ELEMENTARY LATIN.** *Three units.* The Latin reading without the prescription of particular authors and works shall not be less in amount than Caesar, *Gallie War*, I-IV; Cicero, the orations against Catiline, for the Manilian Law, and for Archias. The reading shall be selected from the following authors and works: Caesar, *Gallie War* and *Civil War*, and Nepos, *Lives*; Cicero, orations, letters, and *De Senectute*, and Sallust, *Catiline* and *Jugurthine War*.

Candidates will be examined in translation at sight of passages from Caesar and Cicero. The vocabulary, constructions, and range of ideas of the passages set will be suited to the preparation secured by the reading indicated above. They will be examined also upon the following prescribed reading: Cicero, orations for the Manilian Law and for Archias.

The examinations in grammar and composition will demand thorough knowledge of all regular inflections, all common irregular forms, and the ordinary syntax and vocabulary of the prose authors read in school, with ability to use this knowledge in writing simple Latin prose.

The words, constructions, and range of ideas called for in the examination in composition will be such as are common in the reading of the years covered by the examination.

This requirement is practically the same as that of the College Entrance Examination Board in Latin *NR 1*, *NR 2*, *NR 4*.

**ADVANCED LATIN.** *One unit.* The Latin reading shall not be less in amount than Vergil, *Aeneid*, Books I-VI. This reading shall be selected from Vergil, *Bucolics*, *Georgics*, and *Aeneid*, and Ovid, *Metamorphoses*, *Fasti*, and *Tristia*.

Candidates will be examined in translation at sight of passages from Vergil and Ovid. They will be examined also upon the following prescribed reading: Vergil, *Aeneid*, Books I, II, and either IV or VI, at the option of the candidate.

This requirement is practically the same as that of the College Entrance Examination Board in Latin *NR 5*.

**TWO-YEAR REQUIREMENT IN LATIN.** *Two units.* For candidates for the degree of Bachelor of Science only. The reading shall not be less in amount than Caesar, *Gallie War*, I-IV, and should be selected by the schools from Caesar, *Gallie War* and *Civil War*, and Nepos, *Lives*. Candidates will be examined in translation at sight of passages from the above authors, also in grammar and composition.

The examinations in grammar and composition will demand thorough knowledge of all regular inflections, all common irregular forms, and the ordi-

nary syntax and vocabulary of the prose authors read in school, with ability to use this knowledge in writing simple Latin prose.

The words, constructions, and range of ideas called for in the examination in composition will be such as are common in the reading of the years covered by the examination.

This requirement is practically the same as that of the College Entrance Examination Board in Latin *NR 1*, *NR 2*.

**GREEK. ELEMENTARY GREEK.** *Two units.* The requirement in Elementary Greek includes: (1) Xenophon's *Anabasis*, Books I-IV, with attention not only to language, but to subject-matter as well; (2) grammar, including a familiar knowledge of inflection, word-formation, and ordinary syntax. This will be tested by: (a) questions upon a passage from the *Anabasis*; (b) translation into Greek, with accents, of simple English sentences.

This requirement is the same as that of the College Entrance Examination Board in Greek *a* (i and ii), *b*, and *g*.

**ADVANCED GREEK.** *One unit.* The requirement in advanced Greek includes: (1) three books of Homer's *Iliad* or *Odyssey*, with questions upon meter, Homeric dialect, etc., or (upon request four weeks in advance of the examination) an equivalent amount of a prose author; (2) translation at sight of simple Attic prose or Homer; (3) translation into Greek, with accents, of a continuous passage of English narrative, based upon material similar to the *Anabasis*.

This requirement is the same as that of the College Entrance Examination Board in Greek *c*, *f*, and *h*.

**FRENCH. ELEMENTARY FRENCH.** *Two units.* At the end of the elementary course the pupil should be able to pronounce French accurately, to read at sight easy French prose, to put into French simple English sentences taken from the language of every-day life or based upon a portion of the French text read, and to answer questions on the rudiments of the grammar as defined below.

During the first year the work should comprise: (1) Careful drill in pronunciation; (2) the rudiments of grammar, including the inflection of the regular and the more common irregular verbs, the plural nouns, the inflection of adjectives, participles, and pronouns; the use of personal pronouns, common adverbs, prepositions, and conjunctions; the order of words in the sentence, and the elementary rules of syntax; (3) abundant easy exercises, designed not only to fix in the memory the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression; (4) the reading of from 100 to 175 duodecimo pages of graduated texts, with constant practice in translating into French easy variations of the sentences read (the teacher giving the English), and in reproducing from memory sentences previously read; (5) writing from French dictation.

During the second year the work should comprise: (1) the reading of from 250 to 400 pages of easy modern prose in the form of stories, plays, or historical or biographical sketches; (2) constant practice, as in the previous year, in translating into French easy variations upon the texts read; (3) frequent abstracts, sometimes oral and sometimes written, of portions of the text already read; (4) writing French from dictation; (5) continued drill upon the rudiments of grammar, with constant application in the construction of sentences; (6) mastery of the forms and use of pronouns, pronominal adjectives, of all but the rare irregular verb forms, and of the simpler uses of the conditional and subjunctive.

Suitable texts for the second year are: About's *Le roi des montagnes*, Bruno's *Le tour de la France*, Daudet's easier short tales, La Bédollière's *La Mère Michel et son chat*, Erckmann-Chatrian's stories, Foa's *Contes biographiques* and *Le petit Robinson de Paris*, Foncin's *Le pays de France*, Labiche and Martin's *La poudre aux yeux* and *Le voyage de M. Perrichon*, Legouvé and Labiche's *La cigale chez les fourmis*, Malot's *Sans famille*, Mairét's *La tâche du petit Pierre*, Mérimée's *Colomba*, extracts from Michélet, Sarcey's *Le siège de Paris*, Verne's stories.

This requirement is the same as that of the College Entrance Examination Board in French a.

INTERMEDIATE FRENCH. *One unit.* At the end of the intermediate course the pupil should be able to read at sight ordinary French prose or simple poetry, to translate into French a connected passage of English based on the text read, and to answer questions involving a more thorough knowledge of syntax than is expected in the elementary course.

The work should comprise the reading of from 400 to 600 pages of French of ordinary difficulty, a portion to be in the dramatic form; constant practice in giving French paraphrases, abstracts, or reproductions from memory of selected portions of the matter read; the study of a grammar of moderate completeness; writing from dictation.

Suitable texts are: About's stories, Augier and Sandeau's *Le gendre de M. Poirier*, Béranger's poems, Corneille's *Le Cid* and *Horace*, Coppée's poems, Daudet's *La Belle-Nivernaise*, La Brète's *Mon oncle et mon curé*, Madame de Sévigné's letters, Hugo's *Hernani* and *La chute*, Labiche's plays, Loti's *Pêcheur d'Islande*, Mignet's historical writings, Molière's *L'avare* and *Le bourgeois gentilhomme*, Racine's *Athalie*, *Andromaque*, and *Esther*, George Sand's plays and stories, Sandeau's *Mademoiselle de la Seiglière*, Scribe's plays, Thierry's *Récits des temps mérovingiens*, Thiers's *L'expédition de Bonaparte en Egypte*, de Vigny's *La canne de jonc*, Voltaire's historical writings.

This requirement is the same as that of the College Entrance Examination Board in French b.

GERMAN. ELEMENTARY GERMAN. *Two units.* At the end of the elementary

course the pupil should be able to read at sight, and to translate a passage of very easy dialogue or narrative prose, help being given upon unusual words and construction, to put into German short English sentences taken from the language of every-day life or based upon the text given for translation, and to answer questions upon the rudiments of the grammar, as defined below.

During the first year the work should comprise: (1) careful drill upon pronunciation; (2) the memorizing and frequent repetition of easy colloquial sentences; (3) drill upon the rudiments of grammar, that is, upon the inflection of the articles, of such nouns as belong to the language of every-day life, of adjectives, pronouns, weak verbs, and the more usual strong verbs; also upon the use of the more common prepositions, the simpler uses of the modal auxiliaries, and the elementary rules of syntax and word-order; (4) abundant easy exercises designed not only to fix in mind the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression; (5) the reading of from 75 to 100 pages of graduated texts from a reader, with constant practice in translating into German easy variations upon sentences selected from the reading lesson (the teacher giving the English), and in the reproduction from memory of sentences previously read.

During the second year the work should comprise: (1) the reading of from 150 to 200 pages of literature in the form of easy stories and plays; (2) accompanying practice, as before, in the translation into German of easy variations upon the matter read and also in the offhand reproduction, sometimes orally and sometimes in writing, of the substance of short and easy selected passages; (3) continued drill upon the rudiments of the grammar, directed to the ends of enabling the pupil to use his knowledge with facility in the formation of sentences and to state his knowledge correctly in the technical language of grammar.

Stories suitable for the elementary course can be selected from the following list: Andersen's *Märchen* and *Bilderbuch ohne Bilder*; Arnold's *Fritz auf Ferien*; Baumbach's *Die Nonna* and *Der Schwiegersohn*; Gerstäcker's *Germelhansen*; Heyse's *L'Arrabbiata*, *Das Mädchen von Treppi*, and *Anfang und Ende*; Hillern's *Höher als die Kirche*; Jensen's *Die braune Erica*; Leander's *Träumereien* and *Kleine Geschichten*; Seidel's *Märchen*; Stökl's *Unter dem Christbaum*; Storm's *Imensee* and *Geschichten aus der Tonne*; Zschokke's *Der zerbrochene Krug*.

Good plays adapted to the elementary course are much harder to find than good stories. Five-act plays are too long. They require more time than it is advisable to devote to any one text. Among shorter plays the best available are perhaps Benedix's *Der Prozess*, *Der Weiberfeind*, and *Günstige Vorzeichen*; Elz's *Er ist nicht eifersüchtig*; Wichert's *An der Majorsecke*; Wilhelm's *Einer muss heiraten*. It is recommended, however, that not more than one of these plays be read. The narrative style should predominate. A good selection of reading matter for the second year would be Andersen's *Märchen*, or *Bilder-*

*buch*, or Leander's *Träumereien*, to the extent of about forty pages. After that such a story as *Das kalte Herz*; or *Der zerbrochene Krug*; then *Höher als die Kirche*, or *Immensee*; next a good story by Heyse, Baumbach, or Seidel; lastly *Der Prozess*.

This requirement is the same as that of the College Entrance Examination Board in German a.

INTERMEDIATE GERMAN. *One unit.* At the end of the intermediate course the pupil should be able to read at sight German prose of ordinary difficulty, whether recent or classical; to put into German a connected passage of simple English, paraphrased from a given text in German; to answer any grammatical questions relating to usual forms and essential principles of the language, including syntax and word-formation, and to translate and explain a passage of classical literature taken from some text previously studied.

The work should comprise, in addition to the elementary course, the reading of about 400 pages of moderately difficult prose and poetry, with constant practice in giving, sometimes orally and sometimes in writing, paraphrases, abstracts, or reproductions from memory of selected portions of the matter read; also grammatical drill upon the less usual strong verbs, the use of articles, cases, auxiliaries of all kinds, tenses and modes (with special reference to the infinitive and subjunctive), and likewise upon word-order and word-formation.

The intermediate course is supposed to be the elementary course, plus one year's work at the rate of not less than four recitations a week. Suitable reading matter for the third year can be selected from such works as the following: Ebner-Eschenbach's *Die Freiherren von Gemperlein*; Freytag's *Die Journalisten* and *Bilder aus der deutschen Vergangenheit*,—for example, *Karl der Grosse*, *Aus den Kreuzzügen*, *Doktor Luther*, *Aus dem Staat Friedrichs des Grossen*; Fouqué's *Undine*; Gerstäcker's *Irrfahrten*; Goethe's *Hermann und Dorothea* and *Iphigenie*; Heine's poems and *Reisebilder*; Hoffmann's *Historische Erzählungen*; Lessing's *Minna von Barnhelm*; Meyer's *Gustav Adolf's Page*; Moser's *Der Bibliothekar*; Riehl's *Novellen*,—for example, *Burg Neideck*, *Der Fluch der Schönheit*, *Der stumme Ratsherr*, *Das Spielmannskind*; Rosegger's *Waldheimat*; Schiller's *Der Neffe als Onkel*, *Der Geisterseher*, *Wilhelm Tell*, *Die Jungfrau von Orleans*, *Das Lied von der Glocke*, *Balladen*; Scheffel's *Der Trompeter von Sickingen*; Uhland's poems; Wildenbruch's *Das edle Blut*.

This requirement is the same as that of the College Entrance Examination Board in German b.

HISTORY. Each of the following topics is intended to represent one year of historical work wherein the study is given five times per week, or two years of historical work wherein the study is given three times per week.

ANCIENT HISTORY. *One unit.* Special attention to Greek and Roman history, but including also a short introductory study of the more ancient nations and

the chief events of the early Middle Ages, down to the death of Charlemagne (814).

MEDIEVAL AND MODERN EUROPEAN HISTORY. *One unit.* From the death of Charlemagne to the present time.

ENGLISH HISTORY. *One unit.*

AMERICAN HISTORY AND CIVIL GOVERNMENT. *One unit.*

The examinations in history will be so framed as to require comparison and the use of judgment on the pupil's part rather than the mere use of memory. The examinations will presuppose the use of good text-books, collateral reading, and practice in written work. Geographical knowledge will be tested by requiring the location of places and movements on an outline map.

These requirements are the same as those of the College Entrance Examination Board in History *a, b, c, d.*

PHYSICS. *One unit.* The requirement in Physics is intended to represent at least one hundred and twenty periods of sixty minutes each. Time spent in the laboratory shall be counted at one-half its face value.

Preparation in Physics should include: (a) The study of one standard text-book, for the purpose of obtaining a connected and comprehensive view of the subject. The student should be given opportunity and encouragement to consult other scientific literature. (b) Instruction by lecture-table demonstrations, to be used mainly for illustration of the facts and phenomena of physics in their qualitative aspects and in their practical applications. (c) Individual laboratory work, consisting of experiments requiring at least the time of thirty double periods. The experiments performed by each student should number at least thirty. The work should be so distributed as to give a wide range of observation and practice. The aim of laboratory work should be to supplement the pupil's fund of concrete knowledge and to cultivate his power of accurate observation and clearness of thought and expression. The exercises should be chosen with a view to furnishing forceful illustrations of fundamental principles and their practical applications. They should be such as yield results capable of ready interpretation, obviously in conformity with theory, and free from the disguise of unintelligible units. Slovenly work should not be tolerated, and the effort for precision should not lead to the use of apparatus or processes so complicated as to obscure the principle involved.

Throughout the whole course special attention should be paid to the common illustrations of physical laws and to their industrial applications.

In the solution of numerical problems, the student should be encouraged to make use of the simple principles of algebra and geometry to reduce the difficulties of solution, but unnecessary mathematical difficulties should be avoided, and care should be exercised to prevent the student from losing sight of the concrete facts in the manipulation of symbols.

Every candidate must present as a part of the examination, a note-book certified by the teacher, containing in the candidate's own language a description of his laboratory exercises, with a careful record of the steps, observations, and results of each exercise. The note-book must afford clear evidence of the pupil's ability to make accurate observations and to draw direct conclusions.

This requirement is the same as that of the College Entrance Examination Board in Physics.

**CHEMISTRY.** *One unit.* The following outline includes only the indispensable topics which must be studied in the class-room and laboratory. The material is, for the most part, common to all elementary text-books and laboratory manuals. The order of presentation will naturally be determined by the teacher.

**OUTLINE.** The chief physical and chemical characteristics, the preparation and the recognition of the following elements and their chief compounds: *oxygen, hydrogen, carbon, nitrogen, chlorine, bromine, iodine, fluorine, sulphur*, phosphorus, silicon, potassium, *sodium*, calcium, magnesium, *zinc*, copper, mercury, silver, aluminum, *lead*, tin, *iron*, manganese, chromium.

More detailed study should be confined to the italicized elements and to a restricted list of compounds, such as: water, hydrochloric acid, carbon-monoxide, carbon-dioxide, nitric acid, ammonia, sulphur dioxide, sulphuric acid, hydrogen-sulphide, sodium-hydroxide.

Attention should be given to the atmosphere (constitution and relation to animal and vegetable life), flames, acids, bases, salts, oxidation and reduction, crystallization, manufacturing processes, familiar substances (illuminating gas, explosives, baking powder, mortar, glass, steel, common alloys, porcelain, soap).

Combining proportions by weight and volume; calculations founded on these and on Boyle's and Charles's laws; symbols and nomenclature (with careful avoidance of special stress, since these are non-essential); atomic theory, atomic weights and valency in a very elementary way; nascent state; natural grouping of the elements; solution (solvents and solubility of gases, liquids, and solids; saturation); ionization; mass action and equilibrium; strength (= activity) of acids and bases; conservation and dissipation of energy; chemical energy (very elementary); electrolysis. Chemical terms should be defined and explained, and the pupil should be able to illustrate and apply the ideas they embody. The theoretical topics are not intended to form separate subjects of study, but should be taught only so far as is necessary for the correlation and explanation of the experimental facts.

It is recommended that the candidate's preparation in chemistry should include: (1) individual laboratory work, comprising at least forty exercises; (2) instruction by lecture-table demonstrations, to be used mainly as a basis for questioning upon the general principles involved in the pupil's laboratory investigations; (3) the study of at least one standard text-book, to the end that



the pupil may gain a comprehensive and connected view of the most important facts and laws of elementary chemistry.

Every candidate must present as a part of the examination, a note-book, certified by the teacher, containing in the candidate's own language a description of his laboratory exercises, with a careful record of the steps, observations, and results of each exercise. The note-book must afford clear evidence of the pupil's ability to make accurate observations and to draw direct conclusions.

This requirement is the same as that of the College Entrance Examination Board in Chemistry.

**BOTANY. *One unit.*** The amount of work in this course is designed to occupy a year of five periods a week. Where special circumstances, such as exceptional difficulty of obtaining material, prevent the completion of the entire amount while allowing its equivalent in thoroughness, it is recommended that some of the minor topics be omitted rather than that the attempt be made to cover all more superficially. To provide for this possibility, the examination papers will always include a number of alternative questions.

The course should include a careful study of the general principles of Anatomy and Morphology, Physiology, and Ecology; also the natural history of the plant groups, and classification.

Individual laboratory work by the student is essential and should receive at least double the amount of time given to recitation. Records of the laboratory work, properly certified by the teacher, in which stress is laid upon accurate drawing and precise description, must be presented at the time of examination.

This requirement is the same as that of the College Entrance Examination Board in Botany.

**PHYSIOGRAPHY. *One unit.*** The candidate's preparation should include: (1) the study of one of the leading secondary text-books in physical geography, that a knowledge may be gained of the essential principles, and of well-selected facts illustrating those principles; (2) individual laboratory work, comprising at least forty exercises. From one-third to one-half of the candidate's class-room work should be devoted to laboratory exercises. In the autumn and spring field trips should take the place of laboratory exercises. Properly attested reports of field and laboratory work must be presented at the time of examination.

This requirement is the same as that of the College Entrance Examination Board in Geography.

## ADMISSION TO ADVANCED STANDING

A candidate for admission to advanced standing, who comes from an approved institution of collegiate rank, may receive credit, without examination, for

work done at such institution. He will be required, however, to present, or to have had accepted elsewhere, the same entrance subjects as are demanded of students entering Brown University without advanced credit; and to cover, or to have covered, all the prescribed subjects in the course leading to the desired degree at Brown University. The committee on Registration and Attendance will determine the amount of credit that he may receive, on receipt of the following papers, all of which should be sent to the Registrar of Brown University: (1) a formal statement, made out and signed by the proper official of the institution previously attended, showing all preparatory subjects accepted by it for entrance, and all the courses attended at college, with their catalogue numbers, and the standing attained therein by the student; (2) a similar official statement as to whether the student has completed the amount of work regularly required up to the time of his withdrawal from the previous institution, or has done work in excess thereof, or of less amount, or has incurred conditions or probation; (3) a marked catalogue of the institution previously attended, describing the subjects taken; (4) a letter of honorable dismissal from the institution last attended. In case the student desires to present subjects for entrance in addition to those required or accepted at the previous institution, they will be accepted without examination by Brown University provided that they are certified by an approved preparatory school.

### ADMISSION OF SPECIAL STUDENTS

Mature persons of good character who desire to pursue some special subjects and who have had the requisite preliminary training are allowed to enter the various courses of study in the University without becoming candidates for a degree.

Students who come directly from schools offering full preparatory courses for college, and who are unable to meet the requirements for admission to the regular courses either by examination or certification, will not be admitted as special students.

Applicants for registration as special students must present to the Registrar, on or before August 1 if possible, a certified and detailed statement of the nature and extent of their preparatory work, including testimonials of character and ability. In case a student has attended more than one institution, he must present credentials from each of them. Applicants must satisfy the Committee on Registration and Attendance, by passing the entrance examinations or presenting certificates, that they are qualified to pursue the courses desired.

Special students are subject to the same regulations regarding attendance and examinations as candidates for degrees; they must take fifteen hours of class-room work a week unless satisfactory reasons for a smaller assignment are presented.

## ADMISSION OF GRADUATE STUDENTS

To be admitted as a candidate for an advanced degree, an applicant must have received the degree of Bachelor of Arts, of Philosophy, of Science,† or of Letters from Brown University, or some other college of good standing; or, being a student in Brown University, must have completed with a rank of C the work leading to the degree of Bachelor of Arts, of Philosophy, or of Science, with the exception of such an amount as the Committee on Registration and Attendance will allow him to take in excess of a full year's work (fifteen hours a week). A candidate for the degree of Master of Science must have completed in his undergraduate course at least twenty-eight year-hours of work in mathematics and the sciences.

Persons who have obtained the degree of Bachelor of Arts, of Philosophy, of Science, or of Letters, and who desire to pursue graduate studies without being candidates for an advanced degree, are admitted as special graduate students. Such students are subject to all the regulations of the University regarding graduate students except those which relate to candidacy for degrees.

REGISTRATION AND ENROLMENT OF  
UNDERGRADUATES

**REGISTRATION.** In September all new students, whether candidates for a degree or special students, must report at the Administration Building between 9 a.m. and 1 p.m. or between 2.30 p.m. and 5 p.m. on the Monday or Tuesday preceding the opening of the first semester, and fill out registration cards for the whole of the ensuing year. Failure to comply with this rule will be treated as late registration and a fee of three dollars will be charged. All new students must present at or before the time of registration all credentials necessary for admission as candidates for a degree or as special students.

In May of each year all undergraduates in residence, whether candidates for a degree or special students, must obtain at the Registrar's office registration cards, which must be filled out with a statement of the courses elected for the whole of the ensuing year, and returned not later than June 1. Failure to comply with this rule will be treated as late registration and a fee of three dollars will be charged.

When semester courses are grouped in one paragraph (*e.g.* Botany 1, 2), the second semester may not be taken without the first, unless specific statement to the contrary is made. In starred courses a final mark will be given at the end of the course, the mark given at the end of the first semester being regarded as temporary. Changes in registration will be allowed only on presentation of sufficient reasons to the Committee on Registration and Attendance. Requests for permission to make changes in September must be

† The degree of Bachelor of Science when given for technical work does not lead to the degree of Master of Arts or Doctor of Philosophy in Brown University.

presented to the committee between 9 a.m. and 1 p.m. or between 2.30 p.m. and 5 p.m. on the Monday or Tuesday preceding the opening of the first semester. Requests for permission to make changes for the second semester must be presented to the committee before the beginning of the examinations of the first semester, unless these requests are the result of failures, in which case they must be presented in writing to the Registrar two days before the opening of the second semester.

**ENROLMENT.** All students must report at the Registrar's office between 9 a.m. and 5 p.m. on one of the two days preceding the opening of each semester and have their names checked as enrolled. Failure to report will be treated as late enrolment and a fee of three dollars will be charged.

## REGISTRATION AND ENROLMENT OF GRADUATE STUDENTS

On or before the first day of the academic year, every candidate for registration as a graduate student must file an application with the Dean of the Graduate Department naming the departments, not exceeding three, which he wishes to enter. The application must be made on a blank provided by the Dean, and the blank must be signed by the heads of the departments concerned. The candidate, if not a student or graduate of Brown University, must submit to the Dean, with his application, his diploma or other official evidence of having received a first academic degree, together with a marked catalogue or detailed statement showing the academic courses he has pursued.

A student who has been registered as a graduate student is enrolled as a candidate for a degree when his course of study for the degree has been approved by the Dean of the Graduate Department and by the Faculty. Although graduates of other colleges of good standing are entitled to registration as graduate students, they are not enrolled as candidates for degrees unless the course of study previously pursued by them is, in the opinion of the Dean of the Graduate Department, acting in consultation with the Committee on Registration and Attendance, substantially equivalent to the course leading to the corresponding degree in Brown University. Graduates of colleges in which the course of study is not, in the opinion of this joint committee, equivalent to the corresponding course at Brown University, will be registered as graduate students, but if enrolled they will be required to make up their deficiency under the direction of the committee.

Candidates for advanced degrees must have their selection of courses approved by the heads of the departments in which they are working, and a statement of these courses must be submitted by the heads of the departments to the Dean of the Graduate Department on or before October 15. In the case of candidates for the degree of Doctor of Philosophy, the statement

submitted in the first year of candidacy may be a preliminary outline of the course, but a final statement must be submitted by the head of the department in which the major subject lies not later than October 15 in the last year of candidacy. No change can be made without the consent of the Dean of the Graduate Department and of the head of the department which offers the course.

# REQUIREMENTS FOR DEGREES

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## REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS

### I. PRESCRIBED SUBJECTS

*Ancient Languages* (either Latin or Greek, or both). Six hours. At least three hours must be taken in the Freshman year, and the six hours must be completed by the end of the Sophomore year.

*Modern Languages* (either French or German, or both). Six hours. At least three hours must be taken in the Freshman year, and the six hours must be completed by the end of the Sophomore year.

Students presenting elementary French only must continue French in the Freshman year and take elementary German in either the Freshman or the Sophomore year. Students presenting elementary German only must continue German in the Freshman year and take elementary French in either the Freshman or the Sophomore year. Students presenting elementary French and elementary German only must continue both languages, but may postpone the continuation of one language until the Sophomore year. Students presenting elementary work in one language and elementary and advanced work in the other must take in the Freshman year the language in which the elementary work only was presented. Students presenting elementary and advanced work in both languages may take the required six hours in either French or German, or both.

*Modern Languages (for students entering in 1911)*. Six hours. In at least one modern language the equivalent of the elementary and intermediate requirement for admission must be taken, or such portion of this requirement as was not presented for admission, and one year course (three hours) additional.

Students who entered before 1911 will be permitted, if they desire, to substitute the new for the present requirement in Modern Languages.

*Mathematics*. Three hours. Freshman year.

*English (Rhetoric and Composition)*. Three hours. Freshman year.

*English Literature*. Three Hours. Sophomore, Junior, or Senior year.

*European History*. Three hours. Sophomore or Junior year.

*Physical or Natural Science*. Some three-hour course continuous through the year. Freshman, Sophomore, or Junior year.

*Social and Political Science, and Economics*. Some three-hour course continuous through the year. Sophomore, Junior, or Senior year.

*Philosophy.* Some three-hour course continuous through the year. Sophomore, Junior, or Senior year.

## II. REQUIREMENTS ARRANGED BY YEARS

### FRESHMAN YEAR

I. REQUIRED STUDIES. *Latin* or *Greek*, three hours; *French* or *German*, three hours; *Mathematics*, three hours; *English*, three hours.

II. ELECTIVE STUDIES. One three-hour course continuous through the year must be chosen from the following list: *Latin, Greek, French, German, Classical Civilization, Chemistry, Botany, Biology, Geology, Mechanical Drawing.*

### SOPHOMORE YEAR

That portion of the required work in ancient and modern languages not completed in the Freshman year, and other required and elective courses sufficient to make a total of fifteen hours a week.

### JUNIOR YEAR

The required History and Physical or Natural Science, if not previously taken, and other required and elective courses sufficient to make a total of fifteen hours a week.

### SENIOR YEAR

All required courses not previously taken, and elective courses sufficient to make a total of fifteen hours a week.

## REQUIREMENTS FOR THE DEGREE OF BACHELOR OF PHILOSOPHY†

### FOR STUDENTS WHO ENTERED BEFORE 1911

#### I. PRESCRIBED SUBJECTS

*Modern Languages.* An amount sufficient, with the work presented for admission, to complete the elementary course and a year of advanced work in both French and German. A student who is admitted in both advanced French and advanced German must continue one of these languages for one year, three hours a week.

*Mathematics.* Three hours. Freshman year.

*English (Rhetoric and Composition).* Three hours. Freshman year.

*European History.* Three hours. Sophomore or Junior year.

† Candidates for the degree of Bachelor of Philosophy who entered before 1911 may take advantage of the new Requirements for Concentration, may substitute the new for the present requirements in Modern Languages, and, with the consent of the departments concerned, may substitute a course in Argumentation for the required Mathematics. See pages 74-77.

*Physical or Natural Science.* Some three-hour course continuous through the year. Freshman, Sophomore, or Junior year.

*Philosophy.* Some three-hour course continuous through the year. Sophomore, Junior, or Senior year.

## II. REQUIREMENTS ARRANGED BY YEARS

### SOPHOMORE YEAR

That portion of the required work in modern languages not completed in the Freshman year, and other required and elective courses sufficient to make a total of fifteen hours a week.

### JUNIOR YEAR

The required History and Physical or Natural Science, if not previously taken, and other required and elective courses sufficient to make a total of fifteen hours a week.

### SENIOR YEAR

All required courses not previously taken, and elective courses sufficient to make a total of fifteen hours a week.

## REQUIREMENTS FOR THE DEGREE OF BACHELOR OF PHILOSOPHY

### FOR STUDENTS ENTERING IN 1911

#### I. PRESCRIBED SUBJECTS

A continuous course of three hours through the year in each of the following subjects:

*Mathematics.* This subject may be omitted by students who elect to take Argumentation in the Sophomore year. Freshman year.

*English (Rhetoric and Composition).* Freshman year.

*French or German.* In at least one modern language the equivalent of the elementary and intermediate requirement for admission must be taken, or such portion of this requirement as was not presented for admission, and one three-hour year course in addition.

*Biology.* Freshman or Sophomore year.

*Physics, Chemistry, Geology, or Astronomy.* This requirement does not apply to students who presented Physics and Chemistry for admission. *Chemistry or Geology,* Freshman or Sophomore year. *Physics or Astronomy,* Sophomore year. Only one of this group required.

*Philosophy.* Sophomore, Junior, or Senior year.



*English Literature.* Freshman or Sophomore year.

*European History.* Freshman, Sophomore, or Junior year.

*Social and Political Science and Economics.* Sophomore, Junior, or Senior year.

*Argumentation* (for students who do not take Mathematics). Sophomore year.

*Classical Civilization.* Freshman or Sophomore year. Freshman year for students who do not take Mathematics.

## II. REQUIREMENTS ARRANGED BY YEARS

### FRESHMAN YEAR

I. REQUIRED STUDIES. *English (Rhetoric and Composition).* *French or German* (a course in continuation of a course presented for admission); *Mathematics* (for students who do not elect to take Argumentation in the Sophomore year); *Classical Civilization* (for students who do not take Mathematics); *Biology, Chemistry, or Geology.*

II. ELECTIVE STUDIES. One three-hour course continuous through the year must be chosen from the following list: *Latin, Greek, French, German, Classical Civilization, History, English Literature, Chemistry, Botany, Biology, Geology, Mechanical Drawing.*

### SOPHOMORE YEAR

That portion of the required work in modern languages not completed in the Freshman year.

*Biology*; for students who did not take this course in the Freshman year.

*Physics, Chemistry, Astronomy, or Geology*; for students who did not present Physics and Chemistry for admission or take a course in Physical Science in the Freshman year.

*Argumentation*; for students who did not take Mathematics in the Freshman year.

*Classical Civilization*; for students who did not take this subject in the Freshman year.

*English Literature*; for students who did not take English 19, 20 in the Freshman year.

Other required and elective courses sufficient to make a total of fifteen hours a week.

### JUNIOR YEAR

The required History, if not previously taken, and other required and elective courses sufficient to make a total of fifteen hours a week.

During the Junior and Senior years a student must take at least four courses outside the department chosen for special work. See Requirements for Concentration, below.

### SENIOR YEAR

All required courses not previously taken, and elective courses sufficient to make a total of fifteen hours a week.

### III. REQUIREMENTS FOR CONCENTRATION

At the close of the Sophomore year each candidate for the degree of Bachelor of Philosophy must choose from the following list a department in which he intends to do special work during the Junior and Senior years, and must elect at least three courses of three hours a year each in this department. If he has not already taken a three-hour year course in the department chosen, he must elect four courses.

These courses must be selected in consultation with the head of the department and must be approved by him. When two departments are combined, the selection must be made in consultation with the head of the department first named.

At any time before the beginning of the Senior year a student may, with the approval of the Committee on Registration and Attendance, change the department in which he is to do his special work.

With the approval of the department in which the student is doing special work, he may count as the equivalent of one course, work which does not require regular class-room attendance.

### LIST OF DEPARTMENTS IN WHICH SPECIAL WORK MAY BE TAKEN

Art.

Art, and Greek Literature and History.

Art, and Roman Literature and History.

Art, and Music.

Art, and History.

Astronomy.

Astronomy, and Civil Engineering.

Astronomy, and Physics.

Astronomy, and Mathematics.

Astronomy, and Geology.

Biblical Literature and History.

Biblical Literature and History, and Greek Literature and History.

Biblical Literature and History, and Philosophy.

Biology.

Botany.

Botany, and Biology.

Chemistry.  
 Civil Engineering.  
 Economics.  
 Education.  
 Education, and Philosophy.  
 Education, and Social and Political Science.  
 Education, and History.  
 Electrical Engineering.  
 English.  
 Geology.  
 Germanic Languages and Literatures.  
 Greek Literature and History.  
 Greek Literature and History, and Roman Literature and History.  
 Greek Literature and History, and Biblical Literature and History.  
 Greek Literature and History, and Indo-European Philology.  
 Greek Literature and History, and Art.  
 History.  
 Mathematics.  
 Mechanical Engineering.  
 Mechanics and Mechanical Drawing.  
 Mechanics, and any Engineering department.  
 Philosophy.  
 Physics (exclusive of Electrical Engineering).  
 Roman Literature and History.  
 Roman Literature and History, and Art.  
 Roman Literature and History, and Greek Literature and History.  
 Roman Literature and History, and Indo-European Philology.  
 Romance Languages and Literatures.  
 Social and Political Science.

## REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN CIVIL ENGINEERING

### FRESHMAN YEAR

*First Semester*  
 Mathematics 17  
 Mech. Drawing 1  
 English 1

*Second Semester*  
 Mathematics 18  
 Mech. Drawing 2  
 English 2

and two of the following courses, Chemistry (if not presented for admission), French, German, subject to the direction of the Committee on Registration and Attendance.

NOTE. A student who presents three units in one foreign language for admission is not required to take a course in that language in college, but may elect any course he desires, subject to the approval of the head of the Department of Civil Engineering.

## SOPHOMORE YEAR

*First Semester*

Mathematics 19  
 Mech. Drawing 3  
 Civil Engineering 1  
 Physics 1  
 ‡ Economics 1

*Second Semester*

Mathematics 20  
 Mech. Drawing 4  
 Civil Engineering 2  
 Physics 2  
 ‡ Soc. and Pol. Science 1  
 § Civil Engineering 4  
 Civil Engineering 6

## JUNIOR YEAR

Civil Engineering 7  
 Mechanics 1  
 Geology 3  
 Physics 21  
 Mech. Engineering 19  
 Astronomy 5

Civil Engineering 8  
 Mechanics 2  
 Geology 4  
 Physics 22  
 Mech. Engineering 20  
 Civil Engineering 10  
 Civil Engineering 12

## SENIOR YEAR

Civil Engineering 9  
 Civil Engineering 13  
 Civil Engineering 15  
 Civil Engineering 17  
 Civil Engineering 19  
 Civil Engineering 35  
 Elect. Engineering 1

Mechanics 3

Civil Engineering 20  
 Civil Engineering 22  
 Civil Engineering 24  
 Civil Engineering 26  
 Civil Engineering 28  
 Civil Engineering 30  
 Civil Engineering 32  
 Civil Engineering 34  
 Civil Engineering 36  
 Mech. Engineering 24  
 Mechanics 4

‡ Or some other year course, in the Department of English, or History, or Philosophy, chosen with the approval of the head of the Department of Civil Engineering.

§ Civil Engineering 3 is taken during the spring recess.

# REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

## FRESHMAN YEAR

### *First Semester*

Mathematics 17  
Mech. Drawing 1  
English 1

### *Second Semester*

Mathematics 18  
Mech. Drawing 2  
English 2

and two of the following courses, Chemistry (if not presented for admission), French, German, subject to the direction of the Committee on Registration and Attendance.

NOTE. A student who presents three units in one foreign language for admission is not required to take a course in that language in college, but may elect any course he desires, subject to the approval of the head of the Department of Electrical Engineering.

## SOPHOMORE YEAR

Mathematics 19  
Mech. Drawing 3  
Mech. Drawing 5  
Physics 1  
‡ Economics 1  
Mech. Engineering 1

Mathematics 20  
Mech. Drawing 4  
Mech. Engineering 8  
Physics 2  
‡ Soc. and Pol. Science 1  
Mech. Engineering 2

## JUNIOR YEAR

Mechanics 1  
Mech. Engineering 9  
Physics 21  
Elect. Engineering 1  
Mech. Engineering 3  
Mech. Engineering 19

Mechanics 2  
Mech. Engineering 10  
Physics 22  
Elect. Engineering 2  
Elect. Engineering 6  
Mech. Engineering 20

## SENIOR YEAR

Mechanics 3  
Mathematics 9a  
  
Physics 23  
Elect. Engineering 3  
Elect. Engineering 7  
Mech. Engineering 15  
  
Elect. Engineering 13

Mechanics 4  
Elect. Engineering 8  
Elect. Engineering 10  
Physics 14  
Elect. Engineering 12  
Elect. Engineering 4  
Mech. Engineering 16  
Civil Engineering 26  
Elect. Engineering 14  
Mech. Engineering 24

‡ Or some other year course, not technical, chosen with the approval of the head of the Department of Electrical Engineering.

## REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

### FRESHMAN YEAR

<i>First Semester</i>	<i>Second Semester</i>
Mathematics 17	Mathematics 18
Mech. Drawing 1	Mech. Drawing 2
English 1	English 2

and two of the following courses, Chemistry (if not presented for admission), French, German, subject to the direction of the Committee on Registration and Attendance.

NOTE. A student who presents three units in one foreign language for admission is not required to take a course in that language in college, but may elect any course he desires, subject to the approval of the head of the Department of Mechanical Engineering.

### SOPHOMORE YEAR

Mathematics 19	Mathematics 20
Mech. Drawing 3	Mech. Drawing 4
Mech. Drawing 5	Mech. Engineering 8
Physics 1	Physics 2
‡ Economics 1	‡ Soc. and Pol. Science 1
Mech. Engineering 1	Mech. Engineering 2

### JUNIOR YEAR

Mech. Engineering 19	Mech. Engineering 20
Mech. Engineering 15	Mech. Engineering 16
Mech. Engineering 3	Mech. Engineering 4
Mech. Engineering 9	Mech. Engineering 10
Mechanics 1	Mechanics 2
Physics 21	Physics 22

### SENIOR YEAR

Mech. Engineering 21	Mech. Engineering 22
Mech. Engineering 5	Mech. Engineering 14
Mech. Engineering 17	Mech. Engineering 18
Mechanics 3	Mechanics 4
Elect. Engineering 1	Elect. Engineering 2
Mech. Engineering 11	Mech. Engineering 12
	Mech. Engineering 24
Mech. Engineering 25	Mech. Engineering 26
	Civil Engineering 34

‡ Or some other year course, in the Department of English, or History, or Philosophy, chosen with the approval of the head of the Department of Mechanical Engineering.

## REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS

To obtain the degree of Master of Arts, the candidate must complete a course of liberal graduate study of not less than fifteen hours a week for one year. When graduate students pursue courses primarily designed for undergraduates, a higher degree of scholarship than in the case of undergraduates will be required.

Graduates of Brown University who have to their credit work done as undergraduates and not counted towards the bachelor's degree may offer such work in partial fulfilment of the requirements for the degree of Master of Arts, provided such work is in courses which may be taken by graduates and does not lie in more than three departments, and provided the student has completed the work with a grade of C.

Work done in residence for an advanced degree at another institution, and not to be used in fulfilment of the requirements for an advanced degree elsewhere, may, with the approval of the Dean of the Graduate Department, be offered in partial fulfilment of the requirements for the degree of Master of Arts; but the equivalent of at least nine hours' work a week for one year must be done at Brown University.

When any part of the work leading to the degree of Master of Arts is done *in absentia*,‡ the degree will not be conferred until the end of the second full year of study. The degree *in absentia* must be taken within three years after enrolment, unless the period is extended by special action of the Faculty. Candidacy *in absentia* may be terminated at the end of six months if definite evidence of progress has not been submitted. Candidates *in absentia* must register (by correspondence, if necessary) at the beginning of each college year, and make reports to their instructors at the end of each semester. A final public examination is required of all candidates *in absentia*. This examination will be held only when notification of the intention to appear for examination is given on or before April 1 of the year in which the candidate desires to receive the degree.

## REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE

To obtain the degree of Master of Science, the candidate must complete a course of scientific study satisfactory to the Dean of the Graduate Department and the departments concerned, of not less than fifteen hours of work a week for one year, and must present a thesis in one of the graduate courses which he is pursuing; in place of the thesis a six-hour graduate laboratory course extending through the year may be accepted. All the work must be in one or more of the following subjects: mathematics, engineering, physics,

‡ Courses *in absentia* are not offered by all departments.

chemistry, astronomy, the biological sciences, psychology, geology, and mineralogy. At least half the work must be in courses designed wholly or primarily for graduates; the remainder may consist of any courses satisfactory to the departments concerned and to the Dean of the Graduate Department.

All the work must be done in residence at Brown University with the exception that work done for the degree of Master of Science at another institution, and not to be used in fulfilment of the requirements for any degree elsewhere, may, with the approval of the Dean of the Graduate Department and the departments concerned, be accepted in partial fulfilment of the requirements for the degree of Master of Science to the extent of not more than six hours of work a week for one year.

### REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY ‡

To obtain the degree of Doctor of Philosophy, the candidate must spend at least two years continuously in residence, pursuing a systematic course of advanced study approved by the Graduate Department, the Faculty, and the Board of Fellows, and must pass satisfactory examinations thereon. The candidate must conclude his course with a thesis embodying the results of original research giving evidence of high scholarship and of special attainments in the studies pursued, and constituting as a whole a definite contribution to knowledge. The candidate is examined publicly before June 1 by a committee consisting in each case of the Graduate Department, together with those members of the Faculty who have directed his work and any other officers of professorial rank in the departments concerned. The examination is held only when notification of the intention to appear for examination is given on or before April 1 of the year in which the candidate desires to obtain his degree. The thesis must be presented to the Faculty, in typewritten copy or print, before May 1 in that year. The approval of this thesis by the Faculty is essential to the attainment of the degree.

Work done in residence for the degree of Doctor of Philosophy at another institution, and not to be used in fulfilment of the requirements for an advanced degree elsewhere, may, with the approval of the Dean of the Graduate Department, be offered in partial fulfilment of the requirements for the degree of Doctor of Philosophy. One full year of continuous work, consisting of at least one-half of the minimum requirements for the major and one-half of the minimum requirements for the minor, must be spent at Brown University.

For the degree of Doctor of Philosophy at least two subjects are necessary, a major and a minor, not in the same department; the major subject must constitute not less than three-fifths of the candidate's work. The selection of

‡ As a rule the requirements for this degree, including the thesis, cannot be satisfied in less than three years.



the courses constituting the major and the minor subjects must receive the approval of the head of the department in which the major subject lies, and of the Dean of the Graduate Department. The approval of the head of the department in which the minor subject lies is also necessary for the courses elected in his department.

The candidate must possess a reading knowledge of Latin, German, and French adequate for the purposes of his special studies, unless for sufficient reasons he is excused in respect to one of these languages. To test the candidate's proficiency in this particular, he is examined before December 1 in the last year of his candidacy by a committee consisting of the heads of the departments in which the major and the minor subjects lie, and the heads of the departments of Latin, German, and French.

A year of work for the degree of Master of Arts may be, but is not necessarily, counted as a year of work for the degree of Doctor of Philosophy.

## REGULATIONS UNDER WHICH A STUDENT MAY TAKE A FIRST DEGREE IN LESS THAN FOUR YEARS

A candidate for a first degree, who has credit for the required number of hours of work, including all the required subjects, may, at the end of the semester in which his work is completed, be excused from further attendance at the University, and may receive his degree at the Commencement next following such semester.

A candidate for a first degree who has maintained a satisfactory standing in his studies may, subject to the consent of the Committee on Registration and Attendance, take work in addition to the regular number of hours prescribed in the curriculum of the course which he is pursuing.

A candidate for a first degree may receive credit for work done at the summer school of an approved institution of collegiate rank, provided that the work have the approval of the head of the corresponding department in Brown University. The amount of credit given at the institution in question will be given at Brown University, but the total credit for work at summer schools in any one summer shall not exceed ten semester hours.

A candidate for a first degree may, with the consent of the head of a department and with the approval of the Faculty, pursue studies connected with that department during any summer in which he does not attend a summer school, and may receive credit for such studies, provided that the work be under the supervision of the head of the department concerned and that the candidate pass an examination in all the work before the end of the following semester. The amount of credit will be determined by the head of the department, but the total credit for any one summer shall not exceed six semester hours. No student will be allowed to do summer work in connection with any

department of the University until he has presented to the head of the department a registration slip signed by the Registrar.

A student who at the beginning of his Senior year lacks less than thirty semester hours of completing his course may, with the consent of the Committee on Registration and Attendance, distribute his work over the year.

A student who at the beginning of any semester lacks less than fifteen semester hours of completing his course may, for reasons deemed sufficient by the Committee on Registration and Attendance, be excused from taking more than the necessary number of hours.

For conditions under which graduate work may be pursued during the Senior year, see page 69, under "Admission of Graduate Students."

## ATTENDANCE, STANDING, AND EXAMINATIONS

**ATTENDANCE.** Every student is required to attend every exercise in the several studies to which he is assigned and also the daily Chapel service.

**STANDING.** A record is kept of the attendance of every student and of his proficiency in his several studies. At the close of each semester a report is sent to the parent or guardian of every undergraduate student containing a record of all his absences from required exercises, and indicating his standing in each of his studies for the semester and his deficiency in any study or studies, if any deficiency exists. A student who has failed in three or more courses in any semester, counting for more than eight hours a week, cannot continue his work without the permission of the Committee on Registration and Attendance. The standing of students is indicated by letters as follows:

H is assigned to those whose work is of such excellence as to merit the designation of honor work.

C is assigned to those who have passed with credit.

P is assigned to those who have passed in the subject, but deserve no higher recognition.

F is assigned to those who have failed to pass, but who, in the opinion of the instructor, should be allowed a second examination.

FF is assigned to those whose work during the semester has been so unsatisfactory that, in the opinion of the instructor, they should not be allowed an examination, or to those whose work in the regular examination has been so unsatisfactory that, in the opinion of the instructor, they should not be allowed a second examination, or to those who, in a laboratory course, have not completed half the work required.

I is assigned to those whose work is incomplete, but satisfactory so far as done. All incomplete work must be made up before the middle of the following semester unless special permission for extension of time is given by the Committee on Registration and Attendance. If this requirement is not met, the mark will be changed to FF.

A is assigned to those who were absent from examination, unless FF has already been assigned.

AA is assigned to those who have been absent one-half the time in a course, or to those whose absence from the examination is not excused by the Committee on Registration and Attendance.

**EXAMINATIONS.** Except in laboratory, seminary, and similar work, all classes are examined at the close of each semester. A student is not admitted to the examination in a study in which he has received the mark FF or AA.

Examinations other than the regular semester examinations are given only in

the cases of: (1) students who have received the mark F, (2) students who have received the mark A, and (3) candidates for advanced standing.

A student is not admitted to a special examination except on written authorization from the Registrar. If the examination is taken to remove the mark F or A, the student must pay to the Registrar a fee of two dollars. The Registrar does not authorize special examinations for advanced standing or to remove the mark A without the consent of the Committee on Registration and Attendance.

Special examinations upon the work of the first semester are given only during the second semester, on the third Saturday and succeeding Wednesdays and Saturdays, or in the following September, on as many days as may be necessary preceding the opening of the academic year. Special examinations upon the work of the second semester are given only on the above-mentioned days in the following September.

Students desiring special examinations in the second semester must make application to the Registrar not later than the first Saturday of the semester, specifying the subjects in which examinations are desired. On or before the second Wednesday a schedule of special examinations will be posted. Students desiring special examinations in September must make application to the Registrar not later than August 15, specifying the subjects in which examinations are desired. A schedule of the September examinations is sent about September 1 to the students concerned. Special examinations on the work of the second semester of the Senior year are arranged at the convenience of the instructor.

Special examinations at times other than those scheduled are allowed only by consent of the Committee on Registration and Attendance.

Special examinations for advanced standing are, so far as possible, arranged at the times assigned for other special examinations.

**EXAMINATIONS IN ENTRANCE CONDITIONS.** Members of the Freshman class who enter with conditions in English A, English B, Algebra, or Plane Geometry are required to take regular instruction in these subjects during the Freshman year under a tutor approved by the department concerned. A special examination will be given on completion of the work.

Students who enter with conditions in Language, Science, History, Solid Geometry, or Plane Trigonometry must remove these conditions, by examination, before the beginning of the Sophomore year, otherwise such conditions will be regarded as deficiencies in college work and the students required to take extra courses in the departments in which the deficiencies occur, the amount and selection of the courses to be determined by the Committee on Registration and Attendance in consultation with the departments.

For students already pursuing courses in the University, entrance examinations are given by the University at the close of the Christmas recess in all subjects except English, Algebra, and Plane Geometry. Students desiring to take these examinations must file written applications with the Registrar before

**December 1.** No student who has failed in an entrance examination will be granted a second examination at any time other than September, except on presentation of a tutor's certificate that he is prepared for such examination, and on payment of a fee of two dollars. No entrance examinations other than those appointed above will be held unless ordered by vote of the Committee on Registration and Attendance.

## COURSES OF INSTRUCTION

WHEN semester courses are grouped in one paragraph (e.g. Art 1, 2), the second semester may not be taken without the first unless specific statement to the contrary is made. In starred courses a final mark covering the work of the course as a whole is given at the end of the course, the marks given at the end of the first semester being regarded as temporary. When the time of meeting is not announced, it will be arranged by the instructor at the beginning of the semester.

### I. ART†

WILLIAM CAREY POLAND, A.M., LITT.D., *Professor of the History of Art*

#### 1, 2. *History of Art from Antiquity through the Renaissance*

First semester, ancient art, chiefly Greek and Roman. Second semester, Early Christian, Byzantine, Romanesque, and Gothic art, and the art of the fifteenth and sixteenth centuries; the effect on art of the dominant motives of the epoch, the development of art in the different countries of Europe, the great masters and their most significant works. Text-book, lectures, lantern views. Students who elect this course are advised to elect also, if possible, courses 17, 18, *Practical Work in Art*.

Three hours. Through the year. Elective for Sophomores, Juniors, Seniors, and Graduates. Either semester may be elected independently. *Mon., Wed., Th., at 10.20.*

#### 3, 4. *Modern Art, and Theory and Criticism of the Fine Arts*

First semester, the seventeenth and eighteenth centuries. Second semester, the nineteenth century, with a study of the more important facts and laws of artistic production. Text-book, lectures, special assigned topics, lantern views.

Three hours. Through the year. Course 3 is elective for students who have completed 2. Course 4 is elective for students who have completed 1, or 2, or 3. *Tu., Th., Sat., at 12.20.*

#### 5,\* 6.\* *Renaissance Art, Advanced Course*

Critical study of the art of the fifteenth and sixteenth centuries, particularly Italian. A more detailed study of the spiritual conditions, the influences, and the masters, than in 2.

† For arrangements with the Rhode Island School of Design, see page 173.

Three hours. Through the year. Elective for students who have credit for 2. *Mon., Th., Fri., at 9.20.*

### 7, 8. *Seminary in Greek and Roman Sculpture*

An archaeological course based on Overbeck's *Schriftquellen*.

Three hours. Through the year. Elective for Graduates who read Greek and Latin. Offered if three or more elect the course. It is advised that application be made to Professor Poland at an early date.

### [9. *Seminary Study of the Acropolis of Athens*]

Critical reading, in Greek, of Pausanias' account of the Acropolis of Athens; lectures and illustrations.

Three hours. First semester. Elective for Graduates who read Greek and Latin. Not offered in 1911-12.

### [10. *Seminary in Classical Architecture*]

Critical study; reading of Vitruvius in Latin; discussion of the principles followed by the Greek and Roman architects, and of the influence of Vitruvius upon the Renaissance.

Three hours. Second semester. Elective for Graduates. Not offered in 1911-12.

### 15,\* 16.\* *Freehand Drawing*

Training of hand and eye by study in charcoal and pencil of casts and still-life objects.

One hour. Two hours of drawing. Through the year. Elective for all students. Given at the Rhode Island School of Design. Hours to be arranged with the Director.

### 17,\* 18.\* *Advanced Drawing and Color Work*

Practical work in light and shade, and in color.

Three hours. Six hours of drawing, or four hours of drawing and one hour lecture on Historic Ornament. Through the year. Elective for students who have credit for 15, 16, and who have taken or are taking 1, 2. Given at the Rhode Island School of Design. *Mon., Tu., Wed., at 2.* Lecture hour as arranged by the Rhode Island School of Design.

### 19,\* 20.\* *Architectural Design*

Principles of architectural design and composition taught by means of lectures, problems in design, and working drawings.

Three hours. One hour of recitation and four hours of drawing. Through the year. Elective for students who have credit for Mechanical Drawing 3, 4. Given at the Rhode Island School of Design by Mr. HUGER ELLIOTT, Director. *Mon. at 3.* Drawing hours to be arranged with the Director.

## II. ASTRONOMY

WINSLOW UPTON, A.M., Sc.D., *Professor of Astronomy*

JOHN EDWARDS, *Assistant in the Ladd Observatory*

1. *General Course*

Designed for general culture and preparation for technical work. Fundamental conceptions; methods of professional study. Chief topic: the movements of the heavenly bodies.

Three hours. First semester. Elective for Juniors and Seniors who have credit for Mathematics 1, 2. *Tu., Th., Fri., at 3.20.* Observations at Ladd Observatory. May be continued in the second semester by 2 or 4, or both, subject to the approval of the instructor.

2. *General Course (completed)*

Chief topics: the physical condition of the heavenly bodies; the sidereal universe.

Three hours. Second semester. Elective for students who have credit for 1. *Tu., Th., Fri., at 3.20.*

4. *Practical Astronomy*

Designed for students who wish technical work in observation and computation.

Three hours. Second semester. Elective for students who have credit for 1. Not given unless elected by four or more students.

5. *Field Astronomy*

The astronomical problems of geodesy: azimuth, time, latitude, longitude. Computations and observations.

Four hours. First semester. Required of candidates for the degree of Bachelor of Science in Civil Engineering. Not elective. *Mon., Tu., Th., Fri., at 2.20.* Observations at Ladd Observatory.

7, 8. *Advanced Astronomy*

Designed for students who wish to specialize in Astronomy.

Three hours. Through the year. Elective for approved students who have credit for 2 or 4. Not given unless elected by four or more students.

9, 10. *Research Course*

Special advanced work. Subjects arranged to meet the requirements of individual students.

Elective for Graduates and approved Undergraduates.



## III. BIBLICAL LITERATURE AND HISTORY ‡

HENRY THATCHER FOWLER, PH.D., *Professor of Biblical Literature and History*

NATHAN STERN, PH.D., *Lecturer in Biblical Literature and History*

## LANGUAGES

1, 2. *Elementary Hebrew*

Grammar; exercises in writing Hebrew; translation of parts of Genesis and Deuteronomy. *Dr. STERN.*

Three hours. Through the year. Elective for Juniors, Seniors, and Graduates.

3, 4. *Historical Hebrew*

Reading of the books of Samuel and Kings with special attention to the acquisition of a vocabulary; review of the elements of Hebrew grammar and study of syntax. *Dr. STERN.*

Three hours. Through the year. Elective for students who have credit for 1.

5, 6. *Hebrew Literature*

Psalms literature. Critical translation of the lyric poetry of the Old Testament, investigation of the characteristics and development of Hebrew poetry. In succeeding years corresponding courses in the Wisdom, Legal, and Prophetic literature of the Old Testament will be offered. *Professor FOWLER.*

Three hours. Through the year. Elective for Graduates and approved Undergraduates.

7. *Textual Criticism of the Old Testament*

The principles and method of textual criticism, in connection with the study of one of the shorter prophetic books. *Dr. STERN.*

Three hours. One semester. Offered if applied for by Graduates.

8. *Biblical Aramaic*

Grammar and reading of the Aramaic portions of the Old Testament. *Dr. STERN.*

Three hours. One semester. Offered if applied for by students who have credit for 1.

‡ For conditions under which students may receive credit in the Newton Theological Institution for work done in this department, see page 173.

9, 10. *Elementary Arabic*

Grammar; exercises in writing Arabic; translation of prose selections. *Professor FOWLER.*

Two hours. Through the year. Elective for Seniors and Graduates.

11, 12. *Gospels and Epistles*

Characteristics of Hellenistic Greek; translation, and investigation of date, authorship, and thought. First semester, the Gospel and Epistles of John, the Gospel of Mark. Second semester, the Gospels of Matthew and Luke. *Professor FOWLER.*

Three hours. Through the year. Elective for Juniors, Seniors, and Graduates. Either semester may be elected independently. *Wed., Fri., Sat., at 11.20.*

[13, 14. *Acts and Pauline Epistles*]

First semester, Acts and Thessalonians. Second semester, Galatians, Corinthians, and Romans.

Not offered in 1911-12.

## LITERATURE AND HISTORY IN ENGLISH ‡

[15, 16. *Old Testament Literature and History*]

Includes nearly the entire Old Testament literature and history. In connection with course 17, 18, gives a comprehensive view of Biblical literature and history. The books are read in the best English translations. First semester, early Semitic history, Hebrew literature and history to the close of the United Kingdom. Second semester, Hebrew and Jewish literature and history from the division of the kingdom to the conquest of Alexander.

Three hours. Through the year. Elective for Sophomores, Juniors, Seniors, and Graduates. Not offered in 1911-12.

17, 18. *New Testament Literature and History*

Includes a large part of the Jewish writings from the conquest of Alexander to the destruction of Jerusalem, and the entire New Testament, studied in its Jewish setting. Emphasis placed upon the con-

‡ Course 19, 20 gives a rapid survey of the Bible as a part of the world's literature. It is designed especially for those who do not expect to pursue further courses in this department. Courses 15, 16 and 17, 18 are introductory to more detailed courses in the University or the Theological Seminary. They are also designed for those who, without intending to specialize in this field, desire a comprehensive view of the nature and results of the historical as well as the literary study of the Bible.

nection between the literature and the history. In connection with course 15, 16, gives a comprehensive view of Biblical literature and history. The books are read in the best English translations. First semester, Jewish literature and history from the beginning of the Greek period to the destruction of Jerusalem, the Gospels and other sources for the life of Christ. Second semester, outline of the life of Christ, literature and history of the Apostolic age. *Professor FOWLER*. Three hours. Through the year. Elective for Sophomores, Juniors, Seniors, and Graduates. Either semester may be elected independently. *Mon., Wed., Th., at 10.20.*

### 19, 20. *The English Bible as Literature*

An outline of the literary history of the Old and New Testaments; the literary forms represented in the Bible; the place of the Bible in English literature. Emphasis placed upon the literature itself and its connection with the present. Lectures and assigned readings from the English Bible. First semester, Old Testament literature from the beginning to the close of the Babylonian exile. Second semester, the completion of the Old Testament and the New Testament literature. *Professor FOWLER*.

Three hours. Through the year. Elective for Sophomores, Juniors, Seniors, and Graduates. Either semester may be elected independently. *Mon., Tu., Th., at 11.20.*

### 21, 22.\* *Biblical Seminary*

Subject for 1911-12: The teachings of Jesus. *Professor FOWLER*.

Three hours. Through the year. Elective for Graduates and approved Juniors and Seniors.

### 23. *Principles of Historical Criticism and Research*

This course is the same as course 19 offered by the Department of History. *Professor MACDONALD*.

One hour. One semester. Elective for Graduates of one year's standing. Required of all candidates for the degree of Doctor of Philosophy in Biblical Literature and History.

## IV. BIOLOGY

ALBERT DAVIS MEAD, PH.D., *Professor of Biology*

FREDERIC POOLE GORHAM, A.M., *Associate Professor of Biology*

HERBERT EUGENE WALTER, PH.D., *Assistant Professor of Biology*

PHILIP HENRY MITCHELL, PH.D., *Assistant Professor of Physiology*

JOHN BURNHAM FERGUSON, A.B., M.D., *Demonstrator in Anatomy*

1, 2. *General Biology*

The structure of animals and plants; elementary vital phenomena; the functions of organs; the development of organisms; classification. An outline of the more important biological theories, such as evolution, natural selection, variation, mutation and heredity, and the principles upon which modern hygiene and sanitation are based. The course will introduce the student to the use of the microscope, laboratory technic, and to scientific methods of observation and experiment. *Professor GORHAM.*

Three hours. Six hours of attendance. Through the year. Required in Freshman or Sophomore year of candidates for the degree of Bachelor of Philosophy beginning with the class entering in 1911. Elective for Undergraduates. *Lectures, Mon., Tu., Th., at 3.20. Laboratory, 1st div., Mon., Tu., Th., at 2.20; 2d div., Tu., Th., Sat., at 12.20.*

3, 4. *Comparative Anatomy of Vertebrates*

Intended not only for the general student, but also for those who are particularly interested in zoölogy and for those who expect to study medicine. The structure and significance of the various organs of vertebrates with particular reference to man. Students are permitted to attend clinics and autopsies at the Rhode Island Hospital. Laboratory work and lectures. *Professor WALTER.*

Three hours. Six hours of attendance. Through the year. Elective for Sophomores, Juniors, and Seniors who have credit for 1, 2. *Mon., Wed., Fri., at 8.*

5, 6. *Anatomy of the Nervous System*

A study of the gross and microscopic anatomy of the brain, nerves, and sense organs in man and other vertebrates. Designed particularly for those intending to study medicine or psychology. *Professor MEAD.*

Three hours. Six hours of attendance. Through the year. Elective for Juniors and Seniors who have credit for 1, 2.

### 7, 8. *Embryology and Histology*

The origin and the development of the individual body; the elementary structure of the adult organs. Practice in micro-technic. Adapted to the requirements of general students and of those intending to study medicine. *Professor MEAD.*

Three hours. Six hours of attendance. Through the year. Elective for Juniors and Seniors who have credit for 1, 2. *Tu., Th., Sat., at 8.*

### 9, 10. *Advanced Histology and Pathology*

Advanced work in micro-technic and in normal and pathological histology. Adapted to individual requirements. *Professor MEAD.*

Three hours. Six hours of attendance. Through the year. Elective for Juniors, Seniors, and Graduates who have credit for 1, 2, and 7, 8.

### 11, 12. *General Physiology*

General vital processes in plants and animals; the more special phenomena in higher animals, with their application to human physiology. Designed not only as an introduction to further work, but also as a general view of physiology. Lectures and laboratory work. *Dr. MITCHELL.*

Three hours. Six hours of attendance. Through the year. Must be preceded by 1, 2, and by Chemistry 1, 2. Elective for Juniors and Seniors, and for Sophomores who are not taking any other course in the department.

### 13, 14. *Chemical Physiology*

The chemistry of proteins, carbohydrates, and fats; the physiology of the digestive system, with the study of secretions and of artificial salivary, gastric, and pancreatic digestions; examination of blood, bile, and urine; the analysis of foods with special reference to milk. Designed for those who are interested in physiology either from a medical or a general standpoint, and for those who are specializing in chemistry and desire a knowledge of vital chemical processes. *Dr. MITCHELL.*

Three hours. Six hours of attendance. Through the year. Must be preceded by Chemistry 1, 2, and 15. Elective for Juniors and Seniors, and for Sophomores who are not taking any other course in the department. *Tu., Fri., Sat., at 10.20.*

### 16. *Bacteriology*

A general discussion of bacteria in all their relations, with special attention in the laboratory to the methods of studying bacteria, includ-

ing the isolation, systematic study, and determination of unknown species. Lectures and laboratory work. *Professor* GORHAM.

Three hours. Six hours of attendance. Second semester. Elective for Juniors and Seniors, and for Sophomores who are not taking any other course in the department. *Mon., Wed., Th., at 10.20.*

### 17, 18. *Advanced Bacteriology*

Practical work in the preparation of culture media; methods of sterilization and disinfection; qualitative and quantitative biological examination of water, milk, air, soil, and sewage; study of certain pathogenic organisms, with the determination of their pathogenic properties, and the methods of bacteriological diagnosis of disease. Laboratory work and seminary. *Professor* GORHAM.

Three hours. Six hours of attendance. Through the year. Elective for Juniors, Seniors, and Graduates who have credit for 16.

### 19. *Invertebrate Zoölogy*

A study of the natural history of invertebrate animals, particularly marine forms, insects, and protozoa. Field work will constitute an important part of the course. *Professors* GORHAM and WALTER.

One hour. Two hours of attendance. First semester. Elective for Undergraduates. *Wed. at 2.20.*

### 20. *Ornithology*

A study of birds regarded as a group of living animals, in relation to their environment. Lectures and early morning field trips for the identification of wild birds during their spring migration. *Professor* WALTER.

One hour. Two hours of attendance. Second semester. Elective for Undergraduates.

### 22. *Evolution*

The history of biology, principles of classification, geographical distribution, heredity, natural selection, variation, Mendelism, and the relationship of man to the lower animals. Designed particularly for those who have not studied biology. Lectures and assigned reading. *Professor* MEAD.

Three hours. Second semester. Elective for Juniors and Seniors. *Wed., Fri., Sat., at 11.20.*

[24. *Physiology*]

A general survey of the activities of living organisms with special reference to the human body, including some applications of modern physiology to healthful living. Lectures and assigned reading.

Three hours. Second semester. Elective for Juniors and Seniors. Not offered in 1911-12.

31, 32. *Human Anatomy*

A course in practical dissection. Students are permitted to attend clinics and autopsies at the Rhode Island Hospital. *Dr. FERGUSON.*

Three hours. Through the year. Elective for Graduates.

33, 34. *Biological Research*

Research work arranged to meet the requirements of individual students. *Professor MEAD.*

Three to twelve hours. Through the year. Elective for Graduates.

35, 36. *Advanced Physiology*

Laboratory work and seminary. *Dr. MITCHELL.*

Three to twelve hours. Through the year. Elective for Graduates who have sufficient knowledge of chemistry and physiology.

37, 38. *Bacteriological Research*

Research work arranged to meet the requirements of individual students. *Professor GORHAM.*

Three to twelve hours. Through the year. Elective for Graduates who have credit for 16 and 17, 18.

39, 40. *Biological Theories and Problems*

Seminary course. *Professor MEAD.*

One to three hours. Through the year. Elective for Graduates.

41, 42. *Zoölogical Seminary*

Reading and discussion of German zoölogical literature selected with reference to the needs of individual students. *Professor WALTER.*

One to three hours. Through the year. Elective for Graduates.

## V. BOTANY

HARLAN HARVEY YORK, PH.D., *Assistant Professor of Botany*

1, 2. *General Course*†

A study of the general principles of anatomy and morphology, physiology and ecology, including the natural history of plant groups and classification.

Three hours. Six hours of attendance. Through the year. Elective for Undergraduates. *Mon., Tu., Th., 2.20 to 4.20.*

3, 4. *Histology and Physiology*

Minute structure and special functions of plants and their tissues, embryology, cytology, microtechnic, etc. The work of the second semester can usually be arranged to meet the needs of students intending to take up medicine, forestry, etc.

Three hours. Six hours of attendance. Through the year. Elective for Sophomores, Juniors, and Seniors who have credit for 1, 2, and for approved Graduates. Alternates with 5, 6. Not to be offered in 1912-13.

[5, 6. *Comparative Morphology*]

Intended to give a general view of the evolution and classification of plants by a comparative study of the life-histories of certain types. First semester, cellular plants (algae, fungi, mosses, etc.). Second semester, vascular plants (ferns, seed-plants, etc.).

Three hours. Six hours of attendance. Through the year. Elective for Sophomores, Juniors, and Seniors who have credit for 1, 2, and for approved Graduates. Alternates with 3, 4. Not offered in 1911-12. To be offered in 1912-13.

7, 8. *Advanced Course*

Special work on various phases of botany arranged to meet the requirements of individual students. May be taken in successive years. Students electing this course must plan it definitely, in consultation with the instructor, before June 1 of the preceding academic year.

One or more hours. Through the year. Either semester may be elected independently. Elective for Graduates, and for approved Juniors and Seniors.

10. *Trees*

Aims to familiarize the student with the more common native and

† Students who have taken the one-term course formerly scheduled as Botany 1, may re-elect Botany 1 on the new basis, with the understanding that special or extra work will be assigned to replace all identical portions of the course.



introduced trees. Lectures and field work. The required field trips will take place in the afternoon unless otherwise arranged.

One hour. Two hours of attendance. Second semester. Elective for Undergraduates. *Wed. at 8.*

### [11, 12. *Physiology*]

Includes a study of imbibition, diffusion osmosis, turgor, and the retention of bodily form; relation of soil and solutes to the plant; transpiration and exudation; movement of materials within the plant body; photosynthesis; respiration; growth and movement; reproduction and death.

Three hours. Six hours of attendance. Through the year. Elective for Juniors and Seniors who have credit for Botany 1, 2, and 3, 4, or 5, 6, and for Graduates. Not offered in 1911-12. To be offered in 1912-13.

## VI. CHEMISTRY

JOHN HOWARD APPLETON, A.M., Sc.D., *Newport-Rogers Professor of Chemistry*

JOHN EMERY BUCHER, Ph.D., *Associate Professor of Organic Chemistry*

NORMAN EDWARD HOLT, Sc.M., *Instructor in Chemistry*

ROBERT GAMBLE CASWELL, Ph.B., *Instructor in Chemistry*

ROBERT FOSTER CHAMBERS, Sc.M., *Assistant in Chemistry*

### 1, 2. *Descriptive Chemistry* ‡

Non-metals; metals, their metallurgy, compounds, and practical applications; theoretical chemistry. Lectures with experiments; written exercises; individual laboratory work. *Professor BUCHER, Messrs. HOLT and CHAMBERS.*

Three hours. Through the year. Elective for Undergraduates. *1st div., Mon., Th., at 10.20; 2d div., Tu., Fri., at 10.20; 3d div., Wed., Sat., at 11.20.* Laboratory hours to be arranged with the instructor.

‡ Credit for the entrance requirement in Chemistry admits only to 1, 2, which may be taken also without previous preparation. Students who wish to enter more advanced courses without taking 1, 2, must pass a special test at the time of the entrance examination in Chemistry. This test will cover the following topics: 1. All of the non-metals with their principal compounds and the processes of manufacture of the chief commercial products from non-metals. 2. About thirty important metals, their occurrence, preparation from the ore, the preparation and uses of their chief compounds. 3. The general principles of chemical action which depend upon physical laws. 4. Methods of making chemical computations of moderate difficulty. Preparation for this test may require the equivalent of six hours a week for one school year.

### 3, 4. *Qualitative and Quantitative Analysis*

Properties of the metallic elements; their separation from certain of their compounds. The principal non-metals and the acids formed by them; methods of separation and recognition of acids and acid radicals. Quantitative precipitations and separations of the most important elements and compounds; the principles upon which quantitative apparatus is constructed. Laboratory work; recitations in qualitative analysis and in chemical philosophy; exercises in stoichiometry. *Professor APPLETON and Mr. CASWELL.*

Three hours. Six hours of attendance. Through the year. Elective for students who have credit for 1, 2. *1st div., Fri. at 11.20; 2d div., Sat. at 10.20.* Laboratory hours to be arranged with the instructor.

### 5, 6. *Quantitative Analysis, Advanced Course*

Assaying of metallic ores; analysis of agricultural materials; testing of chemicals used in textile establishments, etc. *Professor APPLETON and Mr. CASWELL.*

Six hours. Twelve hours of attendance. Through the year. Elective for Juniors, Seniors, and Graduates who have credit for 3, 4. Laboratory hours to be arranged with the instructor.

### 7, 8. *Organic Chemistry*

Preparation and analysis of representative organic compounds. Lectures, recitations, and laboratory work. *Professor BUCHER and Mr. HOLT.*

Six hours. Through the year. Elective for approved Juniors, Seniors, and Graduates. *Mon., Th., Fri., at 9.20.*

### 10. *Assaying*

*Professor APPLETON and Mr. CASWELL.*

Six hours. Twelve hours of attendance. Second semester. Elective for Seniors and Graduates who have credit for 1-4.

### 12. *Organic Dyes*

The chemistry and use of mordants, dyes, etc. *Professor APPLETON and Mr. CASWELL.*

Six hours. Twelve hours of attendance. Second semester. Elective for approved Seniors and Graduates.

### 13, 14. *Industrial Chemistry*

Lectures and laboratory work. *Professor APPLETON.*

Three to six hours. Six to twelve hours of attendance. Through the year. Elective for approved Graduates. Either semester may be elected independently.

**15, 16. *Physical Chemistry***

Lectures and laboratory work. *Professor* BUCHER.

Three hours. Through the year. Elective for approved Juniors, Seniors, and Graduates.

**17, 18. *Physical Chemistry, Advanced Course***

Lectures and laboratory work. *Professor* BUCHER.

Three hours. Through the year. Elective for Graduates who have credit for Physics 1-4, and have credit for or are taking Mathematics 7, 8.

**19. *Organic Chemistry, Advanced Course***

*Professor* BUCHER.

Three hours. First semester. Elective for approved Graduates.

**20. *Inorganic Chemistry, Advanced Course***

*Professor* BUCHER.

Three hours. Second semester. Elective for approved Juniors, Seniors, and Graduates.

**21, 22. *Organic Preparations, Advanced Course***

*Professor* BUCHER.

Three hours. Through the year. Elective for approved Juniors, Seniors, and Graduates.

**23, 24. *Inorganic Preparations, Advanced Course***

*Professor* BUCHER.

Three hours. Through the year. Elective for approved Juniors, Seniors, and Graduates who have credit for 7, 8.

**25, 26. *Research Work in Chemistry***

*Professor* BUCHER.

Three or more hours. Through the year. Elective for Graduates.

**27, 28. *Conference on Special Topics in Chemistry***

*Professor* BUCHER.

One hour. Through the year. Elective for approved students.

**29, 30. *Conference on Special Topics in Chemistry***

*Professor* APPLETON.

One hour. Through the year. Elective for approved students.

31, 32. *Industrial Chemistry and Research**Professor APPLETON.*

Three or more hours. Through the year. Elective for approved Graduates.

## VII. CIVIL ENGINEERING †

JOHN EDWARD HILL, C.E.M., Sc.D., *Professor of Civil Engineering*HARDY CROSS, Sc.B., C.E.M., *Assistant Professor of Civil Engineering*ROLAND ELLIS HUTCHINS, Sc.B., *Instructor in Civil Engineering*JOHN JOSEPH LONG, Ph.B., *Instructor in Civil Engineering*1, 2. *Surveying*Theory and practice of plane surveying; use of tape, compass, level, and transit; adjustment of instruments; pen topography; contour drawing; conventional signs; plotting. *Professor HILL, Messrs. HUTCHINS and LONG.*Five hours and three hours. Through the year. Elective for students who have credit for Mathematics 18 and Mechanical Drawing 2. First semester, *Mon., Tu., Th., at 11.20; Mon., Th., 2 to 5.* Second semester, *Mon. at 11.20; Mon., Th., 2 to 5.*4. *Surveying, Advanced Field Work*Use of stadia, plane table, and barometer; precise base-line measurement with steel tape; triangulation; topography. Methods as in 1, 2. *Professors HILL and CROSS, Messrs. HUTCHINS and LONG.*

One hour. Spring recess. Elective for students who have credit for 1 and are taking 2.

6, 7, 8, 9. *Railroad Engineering*Theory, location, construction, and economics of railroad engineering. Lectures, recitations, field work, and drafting. Second semester, railroad curves and practical problems. First semester, actual location of a line about two miles long, map, and estimate of cost. Second semester, railroad track and track work; maintenance of way department; economics of location. First semester, earthwork and its cost; rock excavation; tunneling. *Professor HILL and Mr. HUTCHINS.*

Two, three (six hours of field work), two, and two hours. Second, first, second, and first semesters. Courses 6 and 7 are elective for students who have credit for 2. Courses 8 and 9 are elective for Juniors and Seniors. Second semester,

† All courses in this department are required for the degree of Bachelor of Science in Civil Engineering.

*Tu., Th., at 11.20*; First semester, *Wed., 9.20 to 5*; Second semester, *Tu., Th., at 9.20*; First semester, *Fri. at 9.20*; *Mon., 2.20 to 5.20*.

### 10. *Geodesy*

Problems in geodetic surveying, with sufficient theory for a proper understanding of the formulas used. Lectures, recitations, and computations. *Professor HILL.*

Two hours. One hour of recitation and two hours of computations. Second semester. Elective for students who have credit for 4, and Astronomy 5. *Tu., 2.20 to 4.20*; *Mon. at 9.20*.

### 12. *Highway Engineering*

Economics and location of country roads; surveys, grades, drainage, and foundations; construction and maintenance; economics and design of pavements; dust prevention and preservation of macadam roads; use of bituminous materials in the construction and maintenance of roads; methods of testing road materials; roads and pavements in foreign countries; systems of administration and maintenance; highway laws. Lectures, recitations, inspection trips, and seminary work. *Mr. HUTCHINS.*

Three hours. Second semester. Elective for Sophomores, Juniors, and Seniors. *Mon., Tu., Th., at 8.*

### 13. *Hydraulic Engineering*<sup>‡</sup>

Consideration of water supply mainly from a sanitary standpoint. A general course designed to give the chemical and biological aspects of water supply without laboratory work. Lectures, recitations, and seminary work. *Professor HILL.*

Two hours. First semester. Elective for Juniors and Seniors. *Mon., Th., at 10.20.*

### 15. *Framed Structures*

The standard forms of simple roof trusses; calculation by analytical methods of stresses due to dead, snow, and wind loads; calculation by analytical methods of stresses in Pratt, Howe, Warren, and parabolic trusses due to dead, wind, uniform live, excess panel live, road roller, and locomotive wheel loads; miscellaneous trusses, skew bridges, cranes, trussed bents, and towers; general discussion of continuous, cantilever suspension bridges and arched ribs, and continuous and non-continuous center-bearing swing bridges; deflection of framed structures; theorem of least work. Lectures on American

<sup>‡</sup> Courses 13, 30, and 32 cover the general subject of sanitation.

and English shop practice; the aesthetic design of bridges; design of standpipes and elevated tanks; the American methods of erection of bridges and structures. Lectures, recitations, and seminary work. *Professor Cross.*

Three hours. First semester. Elective for students who have credit for Mechanics 2. *Mon., Tu., Th., at 8.*

### 17. *Elements of Structural Design*

Center of gravity and moment of inertia of combinations of structural shapes; riveted joints, tension members, compression members; combined direct and bending stresses, secondary stresses, columns under direct and eccentric loading; wooden structures; plate girder, pin-connected, and riveted Pratt truss bridges; construction of viaducts and elevated railroads; steel mill-building and high-building construction; comparison of standard structural specifications. Lectures, recitations, and computations. *Professor Cross, Messrs. HUTCHINS and LONG.*

Two hours. First semester. Elective for students who have credit for Mechanics 2. *Tu., 9.20 to 11.20.*

### 19, 20. *Bridge and Roof Design and Graphic Statics*†

Graphic determination of center of gravity of combinations of structural shapes, of moments in beams and stresses in simple roof trusses; determination of shears, moments, and stresses in plate girders and bridge trusses by the use of influence lines; complete design, with general drawings, of a roof truss; revision and discussion of checked drawings; design, with general drawings, of a plate girder highway bridge, and of a Pratt truss railroad bridge. Lectures, drawing, computations, inspection trips, and seminary work. *Professor Cross, Messrs. HUTCHINS and LONG.*

Three hours. One hour of recitation and four hours of drafting, or six hours of drafting. Through the year. Elective for students who have credit for Mechanical Drawing 4, and have credit for or are taking 15 and 17. First semester, *Tu., 11.20 to 1.20; 2.20 to 6.20.* Second semester, *Tu., 11.20 to 1.20; 2.20 to 6.20.*

### 22. *Reinforced Concrete and Masonry Structures*†

Theory and design of reinforced concrete beams, columns, retaining walls, dams, foundations, bridges, and culverts; systems of reinforce-

† Courses 19, 20 and 22 may not be elected separately.

ments; methods of construction. Stone masonry; static and elastic theory of the masonry arch; theory and design of masonry piers, retaining walls, bridge abutments, and high masonry dams; complete design, with drawings, of a reinforced concrete highway bridge; a reinforced concrete retaining wall; a voussoir stone arch, abutments, and wing walls; and a high masonry dam. Lectures, recitations, drafting, and computations. *Professor Cross, Messrs. HUTCHINS and LONG.* Five hours. Two hours of recitation and six hours of drafting. Second semester. Elective for students who have credit for Mechanics 2 and Mechanical Drawing 4. *Mon. at 10.20; Th., 10.20 to 1.20; 2.20 to 6.20.*

#### 24. *Foundations*

Soundings and borings, foundation-beds, deposition of concrete under water, timber foundations, coffer-dams, open caissons, Cushing cylinder piers, pile formulae, driving and foundations, pneumatic caissons of wood and steel, open dredging, the Poetsch freezing process, foundations in quicksand, foundations for high buildings. Lectures, recitations, and seminary work. *Professor Cross.*

One hour. Second semester. Elective for students who have credit for Mechanics 2. *Mon. at 9.20.*

#### 26. *Law of Contracts*

Essential elements of a contract; the parties to a contract, considerations, bids and bidders; work for private parties and public work. Employment of engineers, liability of the engineer as a professional man; when his functions are judicial; when he is a public officer. Engineering specifications and accompanying documents. Lectures and discussion of written decisions on typical cases assigned each week. *Professor Cross.*

One hour. Second semester. Required of all candidates for the degree of Bachelor of Science. *Th. at 9.20.*

#### 28. *Engineering Jurisprudence*

Patents and patent laws including inventions, novelty, utility, abandonment, applications, letters patent, reissues, infringements, damages, injunctions, and profits; real property, water rights, ownership, rights of way, boundaries, incorporeal rights, and franchises. Lectures, recitations, and seminary work. *Professor Cross.*

One hour. Second semester. Elective for Juniors and Seniors. *Tu. at 9.20.*

### 30. *Hydraulic Engineering* ‡

Consideration of water supply mainly from an engineering standpoint. Irrigation, pumps and pumping machinery; construction of dams and reservoirs. Lectures, recitations, and seminary work. Supplements Mechanics 4, which gives the theoretical treatment of the subject. *Professor HILL.*

Two hours. Second semester. Elective for students who have credit for Mechanics 3. *Wed. at 10.20; Fri. at 11.20.*

### 32. *Sanitary Engineering* ‡

Theory of sewerage, treatment and disposal of sewage; stream pollution; house drainage and its appliances; garbage collection and disposal; design of sanitary works. Lectures, recitations, drafting, and seminary work. *Professor HILL.*

Three hours. Second semester. Elective for students who have credit for Mechanics 3. *Wed., Fri., at 9.20; Mon., 2.20 to 5.20.*

### 34. *Hydraulic Surveying (applied Hydraulics)*

Methods of surveying applicable to river and harbor work. Methods of measuring and rating the flow of streams. Actual measurement of the discharge of a stream by means of the current meter, weir, and floats. Recitations and field work. *Mr. HUTCHINS.*

One hour. Three hours of recitation or eight hours of field work last third of second semester. Elective for students who have credit for 2 and Mechanics 3. *Mon., Wed., at 11.20; Fri. at 12.20, or Tu., 9.20 to 5.20.*

### 35, 36. *Thesis*

A thesis is required of all candidates for the degree of Bachelor of Science in Civil Engineering. The thesis must embody either a design or a review of an engineering plant, appliance, process, or structure, or the results of an experimental investigation.

‡ Courses 13, 30, and 32 cover the general subject of sanitation.



## VIII. ECONOMICS ‡

HENRY BRAYTON GARDNER, † Ph.D., *Professor of Economics*

JAMES MARVIN MOTLEY, Ph.D., *Associate Professor of Economics*

RALPH CAHOON WHITNACK, A.M., *Instructor in Economics*

### 1. *Elementary Economics*

Affords an outline and discussion of the fundamental principles of the subject. *Professor* MOTLEY.

Three hours. In connection with Social and Political Science 1 constitutes a year course required in Sophomore, Junior, or Senior year of candidates for the degree of Bachelor of Arts, and in Sophomore year of candidates for the degree of Bachelor of Science. Elective for others. Beginning with the class entering in 1911, required also of candidates for the degree of Bachelor of Philosophy. The combined courses will be given in two divisions. For the first division Economics will precede Social and Political Science; for the second, the order will be reversed. *1st div., first semester, Tu., Fri., Sat., at 10.20; 2d div., second semester, Mon., Wed., Fri., at 12.20.*

### 3, 4. *General Economics*

Covers those portions of the subject not fully treated in Economics 1. Recommended for all students in the department. The development and significance of the characteristic features of modern economic life; the principles governing the exchange, distribution, and consumption of wealth; the more important practical economic problems. During the second semester special attention will be given to railway transportation and the problems incident to its administration and control. *Professor* GARDNER. [This year *Mr.* WHITNACK.]

Three hours. Through the year. Elective for Juniors, Seniors, and Graduates. *Tu., Fri., Sat., at 10.20.*

### 5, 6. *Money and Banking*

Principles of money; recent monetary history, particularly of the United States; systems of the leading industrial nations; present problems. Principles of banking; recent banking history, particularly of the United States; systems of the leading industrial nations; present problems, with special reference to the problem of the reform of the banking system in the United States. *Professor* GARDNER. [This year *Mr.* WHITNACK.]

‡ The courses in this department other than 1 are open only to those students who have credit for Economics 1, and Social and Political Science 1.

† On leave of absence during the academic year 1911-12.

Three hours. Through the year. Elective for Juniors, Seniors, and Graduates.  
*Wed., Fri., Sat., at 11.20.*

### 7. *Socialism and Labor Problems*

A brief review of the historically important socialistic schemes; an analysis and criticism of the leading socialistic theories, with special emphasis upon present day proposals; the rise of the trade union and the influence of collective bargaining; labor problems in the United States. *Professor MOTLEY.*

Three hours. First semester. Elective for Juniors, Seniors, and Graduates.  
*Mon., Tu., Th., at 11.20.*

### 10. *Tariff, Reciprocity, and Shipping Subsidies*

The development of the American system of protection and its effect upon domestic industry and international commerce; an analysis and criticism of arguments for protective tariff and for free trade; reciprocity agreements; policies of leading nations with regard to state aid to shipping. *Professor MOTLEY.*

Three hours. Second semester. Elective for Juniors, Seniors, and Graduates.  
*Mon., Tu., Th., at 11.20.*

### [11. *Public Finance*]

General principles of public finance; revenues and expenditures of leading industrial nations; public enterprises in their financial aspects; principal forms of taxation and their effects; public debts.

Three hours. First semester. Not offered in 1911-12. To be offered in 1912-13.

### [12. *The Financial History of the United States*]

Covers the period from the adoption of the Constitution to the present day.

Three hours. Second semester. Not offered in 1911-12. To be offered in 1912-13.

### [13. *Statistics*]

The principles of statistics as a method of recording and presenting social and economic facts; the possibilities and limitations of the statistical method; the interpretation of statistics; some of the important results of statistical investigation.

Three hours. First semester. Not offered in 1911-12. To be offered in 1912-13.

### [14. *Accounting*]

The importance of accounting in economic life and the principles

which underlie it; the accounting systems of public bodies and quasi-public corporations; the interpretation of financial statements.

Three hours. Second semester. Not offered in 1911-12. To be offered in 1912-13.

[15. *Trade and Transportation*]

The organization of international trade and the place of the United States in the commerce of the world; a description of the existing trade relations of the United States, of the conditions which control them, and the probable lines of their development. The organization and development of the internal trade of the United States with special reference to railway transportation and the problems to which it has given rise.

Three hours. First semester. Not offered in 1911-12. To be offered in 1912-13.

[16. *Corporations and Corporation Finance*]

The corporation as a form of business organization; its formation and promotion; capitalization; forms of securities; the stock market; state and federal control and similar topics.

Three hours. Second semester. Not offered in 1911-12. To be offered in 1912-13.

21, 22. *Investigation of Special Topics*

Intended to afford a training in methods of gathering, handling, and presenting data in the study of economic life and problems. Each student is assigned a separate topic. *Professor MOTLEY and Mr. WHITNACK.*

Three hours. Six hours of attendance. Through the year. Either semester may be elected independently. Students intending to take either of these courses must secure the permission of the head of the department not later than December 1 or June 1 in the semester preceding that in which they desire to take the course. It is expected that as a rule these courses will be taken in connection with lecture courses. Hours to be arranged with the instructor.

23, 24. *Economic Seminary*

Study of important aspects of economic theory, history, and current problems of economic life. The first semester, 1911-12, will be devoted to a study of questions connected with the economic history of the United States. *Professor MOTLEY and Mr. WHITNACK.*

Three hours. Two hours of attendance. Through the year. Elective for Seniors and Graduates who have taken advanced work in Economics. Hours to be arranged with the instructor.

## IX. EDUCATION ‡

WALTER BALLOU JACOBS, A.M., *Professor of the Theory and Practice of Education*

1. *History of Education*

Education among the early culture peoples; development of education in Greece and Rome; early Christian education; the Renaissance and humanism; the beginnings of modern education; the naturalistic movement, Rousseau; the psychological movement, Pestalozzi, Froebel, Herbart; the scientific movement, Spencer and Huxley; recent sociological tendencies; the American college; the movement for industrial education.

Three hours. First semester. Elective for Juniors, Seniors, and Graduates, and by permission. *Mon., Wed., Fri., at 12.20.*

2. *Principles of Education*

The meaning and aim of education; its function as a social institution; physical education—heredity, growth, and development; intellectual education—its aim, the choice of studies, their organization into a consistent whole; the principles of method in teaching; moral education. Education as limited by environment and as gaining the mastery over environment.

Three hours. Second semester. Elective for Juniors, Seniors, and Graduates, and by permission. *Mon., Wed., Fri., at 12.20.*

3. *The Process of Education; its Psychology and Hygiene*

Theory and process of mental and physical development with special emphasis upon the period of adolescence. Educational psychology; mind as developing out of the control of instincts; the learning process; imitation and suggestion as factors in education; the psychology of the various studies and disciplines; the theory of formal discipline. The hygiene of body and mind; play and fatigue, physical culture

‡ Courses 1 and 2 treat education in its relation to the individual and to the social and political whole; interest in them is therefore not limited to those who intend to teach. At the same time they form an introduction to the more advanced courses in Education. Those who intend to teach are advised to elect these courses during the Junior year.

Courses 1-4 cover the usual requirements for certificates of the First Grade except where practice teaching or experience is demanded. In Rhode Island a certificate is required of all teachers in schools supported in whole or in part by public money. Certificates of the First Grade are granted without examination to those who have completed courses 1-4 and hold a college degree. Due credit is also given for separate courses.

Certificates, authorizing the holders to teach in the evening schools of the state, are issued without examination to students who have completed three years of regular work, including Education 1, 2.

and athletics; arrested growth in body and mind, its causes and its prevention.

Three hours. First semester. Elective for students who have credit for 1 or 2, or who are taking 1, and for Graduates. *Mon., Tu., Th., at 11.20.*

#### 4. *Practical Introduction to Teaching*

The elements of method and their application in practice teaching; observation of good teaching; management and discipline of classes; administration of education; school buildings, their proper construction, maintenance, and equipment; medical inspection; school law.

Three hours. Second semester. Elective for students who have taken or are taking other courses in Education, and for Graduates. *Mon., Tu., Th., at 11.20.*

#### 5. *Secondary Education; Organization and Function*†

The place of the high school and academy in the American system of education; comparison with secondary schools in Germany, France, and England; the administration of secondary education; its relation to the colleges and universities; meaning and value of the various secondary school studies, and their organization into a curriculum; high schools; the social life of the high school and academy; high school extension.

Three hours. Two hours of class-room attendance. First semester. Required of student-teachers. Elective for Graduates and experienced teachers, and for approved Seniors. *Wed., 3.20 to 5.20.*

#### 6. *Secondary Education; Methods and Processes*†

The principles of method as applied to teaching in secondary schools; the resources at the command of the teacher; the preparation of teachers. The following will receive special attention as typical secondary school studies: English, Modern Languages and Latin; History, Science, and Mathematics; the Manual Arts.

Three hours. Two hours of class-room attendance. Second semester. Required of student-teachers. Elective for Graduates and experienced teachers, and for approved Seniors. *Wed., 3.20 to 5.20.*

#### 7, 8. *Problems in Practical Teaching; Secondary Schools*†

Practice teaching in the Providence High Schools. Observation, reports, and conferences. Designed for those who wish to become instructors in colleges, teachers or principals in secondary schools, or superintendents of schools.

† In connection with this course, and for an explanation of the work of student-teachers, see page 174.

Three hours. Through the year. Elective for Graduates who have credit for elementary courses in Education and are taking 5 and 6; also for approved Seniors. *Fri.* at 3.20, and at other hours to be arranged.

9, 10. *Problems in Practical Teaching; Grammar Grades*†

Practice teaching in the Providence Grammar Schools. Observation, reports, and conferences. Designed especially for those who wish to become grade teachers, principals of grammar schools, or superintendents of schools, but also for those who wish to teach in secondary schools. The following studies receive special attention: Arithmetic, Language, History, and Geography.

Three hours. Through the year. Elective for Graduates who have credit for elementary courses in Education and are taking 11, 12; also for approved Seniors. *Mon.* at 3.20, and at other hours to be arranged.

11, 12. *Seminary in Education*†

Studies in current educational problems. The seminary will be conducted in two parts in successive hours. *Part A.* Reviews of the latest books upon education and related subjects, and studies of special topics assigned for presentation. *Part B.* A more intensive study of certain problems of current interest. For 1911-12 the subjects will be: First semester, Mental and Physical Measurements and their Importance in Education. Second semester, Administrative and Social Phases of Education. As subjects are not repeated, the course may be elected for successive years.

Three hours. Through the year. Two hours of class-room attendance. Required of student-teachers. Elective for Graduates and experienced teachers, and for approved Seniors. A or B may be elected independently as a one-hour course. *Sat.*, 10.20 to 12.20.

† In connection with this course, and for an explanation of the work of student-teachers, see page 174.

## X. ENGLISH†

WALTER COCHRANE BRONSON, A.M., LITT.D., *Professor of English Literature*

LINDSAY TODD DAMON, A.B., *Professor of English Literature and Rhetoric*

ALBERT KNIGHT POTTER, A.M., *Associate Professor of the English Language*

GEORGE WYLLYS BENEDICT, PH.D., *Associate Professor of English*

THOMAS CROSBY, A.M., *Associate Professor of English and Public Speaking*

HENRY BARRETT HUNTINGTON, A.B., *Associate Professor of English*

WILLIAM THOMSON HASTINGS, A.M., *Instructor in English*

STANLEY BATES HARKNESS, A.B., *Instructor in English*

LAURENCE RICH GROSE, A.M., *Instructor in English*

WALTER BROOKS HENDERSON, PH.B., *Assistant in English*

JOHN DONALD PRYOR, PH.B., *Assistant in English*

### 1, 2. *Rhetoric and Composition*

Designed to give the student a clear and correct style and some critical standards. Lectures and recitations upon the principles governing prose style; prescribed reading; themes. *Professors* DAMON, BENEDICT, and HUNTINGTON, *Messrs.* HASTINGS, HARKNESS, GROSE, HENDERSON, and PRYOR.

Three hours. Through the year. Required of all Freshmen. *1st, 2d, 3d, and 4th div., Mon., Tu., Th., at 11.20; 5th, 6th, 7th, and 8th div., Mon., Wed., Fri., at 12.20; 9th div., Wed., Fri., Sat., at 11.20; 10th div., Mon., Tu., Th., at 3.20.* Students repeating the course must enter division 9.

### 3, 4. *English Composition, Second Course*

Intended to supplement the training given in 1, 2, and to develop further the power of exact and lucid statement. Lectures, recitations, and prescribed reading; weekly themes and other written exercises involving a variety of specific tasks such as abstracts, reports, scientific, technical, and historical papers, criticism, stories, the personal essay, etc. *Professor* BENEDICT.

Three hours. Through the year. Elective for Sophomores. *Tu., Fri., Sat., at 10.20.*

† Credit for English 1, 2 is a prerequisite for admission to all other courses in the department except 19, 20.

Courses 1-16 may not be counted in fulfilment of the requirement of a year in English Literature.

### 5, 6. *English Composition, Advanced Course*

Intended to develop ease of style and clarity and vigor of thought. Frequent practice in composition and criticism. *Professor DAMON.*

Three hours. Through the year. Elective for Juniors and Seniors and, with the permission of the instructor, for Sophomores who have attained the grade of C in 1, 2. With the consent of the instructor the course may be repeated. *Mon., Tu., Th., at 2.20.*

### 7, 8. *Argumentative Composition*

Intended to develop the power of handling argumentative topics cogently and persuasively. Lectures on the principles and forms of argumentative composition; frequent practice in brief-drawing and the writing of forensics and less formal arguments. *Professor HUNTINGTON.*

Three hours. Through the year. Elective for Sophomores, Juniors, and Seniors; required in the Sophomore year of candidates for the degree of Bachelor of Philosophy who did not take mathematics in their Freshman year. *Tu., Fri., Sat., at 10.20.*

### 9. *Argumentative Composition*

Intended to furnish a more rapid training than 7, 8, for students who wish to begin debate as early as possible or to go quickly over the fundamentals of argumentative composition. The principles and forms of brief-drawing and forensic writing. Lectures, written exercises, briefs, and forensics. *Professor HUNTINGTON.*

Three hours. Two hours of attendance. First semester. Elective for Juniors and Seniors. Not elective for students who have taken 7, 8. *Mon. at 3.20; Fri. at 2.20.*

### 10. *Debate*

Intended to train students in correct and vigorous oral presentation of ideas. *Professor HUNTINGTON, with the coöperation of the Professors of Economics, Social and Political Science, History, and Public Speaking.*

Three hours. Second semester. Elective for a limited number of Juniors and Seniors who have credit for 9, or 7. With the consent of the instructor the course may be repeated. *Mon., 3.20 to 5.20; Fri., 2.20 to 4.20.*

### 45, 46. *Principles of Play-writing*

Lectures on the technique of the drama. Practice in the analysis and construction of plays. *Professor CROSBY.*

Three hours. Through the year. Elective with the consent of the instructor for a limited number of advanced students.



### 11, 12. *Public Speaking*

Principles of voice culture; vocal interpretation of literature; extempore speaking. *Professor CROSBY.*

Three hours. Through the year. Elective for Sophomores, Juniors, and Seniors. *Wed., Fri., Sat., at 11.20.*

### [13, 14. *Public Speaking, Advanced Course*]

Practice in reading lyric, narrative, and dramatic literature, in extempore speaking, and in the composition and delivery of the common forms of the occasional address. Special attention to securing right tone-production and to improvement in speech.

Three hours. Through the year. Elective for students who have attained the grade of C in 11, 12. Not offered in 1911-12.

### 15, 16. *Old English*

Essentials of Anglo-Saxon grammar; prose selections; Beowulf. *Professor POTTER.*

Three hours. Through the year. Elective for Juniors, Seniors, and Graduates. *Tu., Th., Fri., at 4.20.*

### 17, 18. *Chaucer*

A study of the poems as literature, with sufficient attention to Middle English grammar to enable the student to read intelligently. Selections from Langland and Gower. *Professor POTTER.*

Three hours. Through the year. Elective for Juniors, Seniors, and Graduates. *Tu., Th., Fri., at 3.20.*

### 19, 20. *English Literature from the Beginning to 1892*

An outline course in the history of English literature, with reading and study of the greater writers. *Professor BRONSON.*

Three hours. Through the year. Elective for Sophomores, and for Freshmen who are candidates for the degree of Bachelor of Philosophy. *Tu., Th., Sat., at 12.20.*

### [21, 22. *The Drama in England to 1642*]

The drama as a literary type and its history in England to the closing of the theatres.

Three hours. Two meetings a week, and a third meeting at the pleasure of the instructor. Through the year. Elective for students who have credit for a year's work in English Literature. Not offered in 1911-12.

### 23. *The Modern English Drama*

The history of the English drama from 1660 to the present time. Reading and discussion of the work of the chief playwrights from Wycherley and Congreve to Jones, Pinero, and Shaw. *Professor CROSBY.*

Three hours. First semester. Elective for Juniors and Seniors who have credit for a year's work in English Literature. *Mon., Wed., Fri., at 12.20.*

### 25, 26. *Shakspeare*

Careful study of a few plays with special attention to exact interpretation. In 1911-12 the plays read will be *Othello, Henry V, King Lear, Love's Labour's Lost, Antony and Cleopatra, Cymbeline.* *Mr. HASTINGS.*

Three hours. Through the year. Elective for Sophomores, Juniors, and Seniors. *Tu., Th., Sat., at 12.20.* Not to be offered in 1912-13.

### 27, 28. *Shakspeare*

A brief survey of the drama before Shakspeare. Shakspeare as playwright and poet. Reading of all the plays; careful study of the great tragedies. Lectures, discussions, and reports on assigned topics. *Professor POTTER.*

Three hours. Through the year. Elective for Juniors and Seniors. *Tu., Fri., Sat., at 10.20.*

### [29, 30. *English Literature exclusive of the Drama, from 1600 to 1660*]

The decline of the Elizabethan spirit; Puritanism and Anglicanism in literature; the "metaphysical" and mystical poets; the cavalier lyrists; all the English poems and some of the prose works of Milton.

Three hours. Through the year. Elective for students who have credit for a year's work in English Literature. Not offered in 1911-12.

### [31, 32. *English Literature from 1660 to 1798*]

The Restoration drama; the classical school; development of the essay and the novel; the beginnings of romanticism.

Three hours. Two meetings a week, and a third meeting at the pleasure of the instructor. Through the year. Elective for students who have credit for a year's work in English Literature. Not offered in 1911-12.

### 33, 34. *The English Novel*

The history of the English novel from 1700 to 1900; reading and

discussion of the greater English novelists, including Defoe, Richardson, Fielding, and Smollett in the eighteenth century, and Scott, Jane Austen, Dickens, Thackeray, Charlotte Brontë, George Eliot, Meredith, Hardy, and Stevenson in the nineteenth century. *Professor DAMON.*

Three hours. Two meetings a week, and a third meeting at the pleasure of the instructor. Through the year. Elective for Juniors and Seniors. *Mon., Tu., Th., at 11.20.* Not to be offered in 1912-13.

[35. *English Literature from 1798 to 1832, Poetry*]

The reaction from pseudo-classicism; the influence of the French Revolution; liberalism and individualism in English poetry; contemporary criticism. Wordsworth, Coleridge, Southey, Scott, Byron, Shelley, Keats, Landor.

Three hours. Two meetings a week, and a third meeting at the pleasure of the instructor. First semester. Elective for Sophomores, Juniors, and Seniors. Not offered in 1911-12.

[36. *English Literature from 1798 to 1832, Prose*]

The development of the romantic novel; the rise of the reviews and quarterlies; essays and miscellaneous prose. Scott, Jane Austen, Coleridge, Jeffrey, De Quincey, Lamb, Hazlitt.

Three hours. Two meetings a week, and a third meeting at the pleasure of the instructor. Second semester. Elective for Sophomores, Juniors, and Seniors. Not offered in 1911-12.

37. *English Literature from 1832 to 1892, Prose*

Modifications of romanticism; realism; the influence of science and democracy; tendencies at the end of the century. Essays, history, miscellaneous prose, the novel. Macaulay, Carlyle, Arnold, Ruskin, Pater, Newman, Huxley, Dickens, Thackeray, the Brontës, George Eliot. *Professor BENEDICT.*

Three hours. Two meetings a week, and a third meeting at the pleasure of the instructor. First semester. Elective for Sophomores, Juniors, and Seniors. *Mon., Wed., Th., at 10.20.*

38. *English Literature from 1832 to 1892, Poetry*

Modifications of romanticism; Pre-Raphaelitism; the influence of science and democracy; tendencies at the end of the century. Tennyson, Browning, Arnold, Clough, Rossetti, Morris, Swinburne. *Professor BENEDICT.*

Three hours. Two meetings a week, and a third meeting at the pleasure of the instructor. Second semester. Elective for Sophomores, Juniors, and Seniors. *Mon., Wed., Th., at 10.20.*

### 39, 40. *American Literature*

American literature from the beginning to 1900, in its relation to American life and to English literature. A rapid survey of the literature of the seventeenth and eighteenth centuries; reading and study of the writers of the nineteenth century, with special attention to Irving, Cooper, Bryant, Poe, Longfellow, Emerson, Hawthorne, Whittier, Lowell, Holmes, and Whitman. *Professor BRONSON.*

Three hours. Two meetings a week, and a third meeting at the pleasure of the instructor. Through the year. Elective for students who have credit for a year's work in English Literature. *Tu., Wed., Sat., at 9.20.* Not to be offered in 1912-13.

### 42. *Contemporary English and American Literature*

A study of the tendencies of modern thought through the literature that reflects it. Reading and discussion of contemporary poets, novelists, and essayists. Carman, Dowson, Henley, Hovey, Moody, Noyes, Watson; Bennet, De Morgan, Hewlitt, Howells, Locke, Mrs. Humphry Ward, Wells; Benson, Chesterton, Crothers, Dawson, Lang. *Professor CROSBY.*

Three hours. Second semester. Elective for Juniors and Seniors. *Mon., Wed., Fri., at 12.20.*

### 43, 44. *Seminary in English Literature*

Subject for 1911-12: The history of literary criticism in England, with practice in various kinds of criticism. *Professor BRONSON.*

Three hours. Two hours of attendance. Through the year. Elective for Graduates, and for a limited number of Seniors who have attained the grade of C in two years' work in English Literature.

## XI. GEOLOGY

CHARLES WILSON BROWN, A.M., *Assistant Professor of Geology*

NELSON CLARK DALE, A.M., *Instructor in Geology*

### 1, 2. *General Geology*

An historical summary of earth-development with special reference to the North American continent, including changes in areas of land

and sea, vulcanism, mountain building, sedimentation, ancient life types, and the principles of organic evolution they illustrate. First semester, dynamic and structural geology. A discussion of earth origin and of agencies producing various topographic forms, rock-changes, deformation of crust, vulcanism, mountain building, and continent making. Second semester, stratigraphy and paleontology. Lectures illustrated by stereopticon, maps, models, and specimens. Two field trips in the autumn and three in the spring.

Three hours. Through the year. Elective for Undergraduates. Course 2 may be taken in continuation of 1 or 5. *Mon., Wed., Th., at 10.20.*

### 3, 4. *General Geology*

A shorter course than 1, 2, with emphasis upon the discussion of problems that may arise in engineering work. Special attention in map and field study to topographic features resulting from the various geologic agencies, and to the study of hand specimens of ores, minerals, and rock types and their uses.

Two hours. Four hours of attendance. Required in the Junior year of candidates for the degree of Bachelor of Science in Civil Engineering. Not elective. First semester, *Mon. at 10.20, Fri. at 9.20*; second semester, *Mon., Wed., at 10.20.*

### 5. *Physical Geography*

Study of the origin, development, and recognition of topographic features produced by agencies such as rivers, oceans, glaciers, and vulcanism; discussion of soils, ores, and other natural resources. May be continued in 6 or 8.

Three hours. First semester. Elective for Undergraduates except Freshmen and Sophomores who are taking another course in the department. *Mon., Th., at 10.20.* Conference hour to be arranged with the instructor.

### 6. *Economic Geography and Conservation*

A discussion of the laws of meteorology, and the relation of climate to soil products and to man and his development; the physiographic controls that influence the development of transportation and commerce; agriculture, forests, water power, and water supply; the location and proper development of cities; and the geographic distribution and conservation of ore deposits and other natural resources. May be continued in 8, or 11, 12.

Three hours. Second semester. Elective for Undergraduates who have credit for 1 or 5, or who presented Physiography for admission, except Freshmen and

Sophomores who are taking another course in the department. *Tu., Wed., Sat., at 9.20.*

### [7. *Economic Geology*]

A discussion of the theories concerning the origin of ore deposits, geologic relations, and the location, distribution, and production of ores.

Three hours. First semester. Elective for Undergraduates who have credit for 1, 3, or 9, 10. Not offered in 1911-12.

### 8. *Stratigraphy and Structural Geology*

An introductory course in field geology. Study of areal and structural geology in igneous and sedimentary areas from geologic reports. Practice in the construction of geologic maps and work in the field areas.

Three hours. Second semester. One conference hour to be arranged, and the equivalent of five hours' work in the laboratory or field. Elective for Undergraduates who have credit for 1, 3, or 5.

### 9, 10. *Mineralogy and Petrography*

An introductory course in the macroscopic and microscopic study of minerals, ores, and rocks. First semester, discussion of crystal forms and the laws of crystallography, determination by physical properties and blow-pipe analysis of the more common minerals and ores. Second semester, study of the optical properties of the rock-forming minerals, rocks, and ores, under the polarizing microscope; determination of rock types; discussion of the fundamental principles of the origin and classification of the rocks and ores.

Three hours. Six hours of attendance. Through the year. Elective for Sophomores, Juniors, and Seniors. *Tu., Th., at 11.20.*

### 11, 12. *Research in Geology and Geography*

Advanced work in the library, laboratory, or field, in the various phases of geology or geography as outlined in the preceding elementary courses. The region in which the University is situated offers in a small compass both simple and complex problems in field research in structural, paleontological, and stratigraphic geology. Arranged to meet the requirements of individual students.

One to six hours. Through the year. Elective for Graduates and approved Undergraduates. Either semester may be elected independently.

XII. GERMANIC LANGUAGES AND  
LITERATURES‡

CAMILLO VON KLENZE, PH.D., *Professor of the Germanic Languages and Literatures*

ASA CLINTON CROWELL, PH.D., *Associate Professor of the Germanic Languages and Literatures*

JOHN HERBERT BACHMANN, A.M., *Instructor in German*

JOHN FREDERICK SIEVERS, A.M., *Instructor in German*

BERNARD KEENAN, A.M., *Assistant in German*

1, 2. *Elementary Course, First Year*

Reading, grammar, composition, conversation, dictation, sight reading. *Professor CROWELL, Messrs. BACHMANN and SIEVERS.*

Three hours. Through the year. Elective for students who did not present German for admission. *1st div., Tu., Wed., Sat., at 9.20; 2d div., Mon., Th., Fri., at 9.20; 3d div., Tu., Th., Sat., at 12.20; 4th div., Mon., Tu., Th., at 2.20.*

3, 4. *Elementary Course, Second Year*

Reading of modern German stories of the type found in Baker's *German Stories*, lyrics (von Klenze or Hatfield), and two dramas illustrating respectively the classical and the modern period, for example, Schiller's *Maria Stuart* and Hebbel's *Agnes Bernauer*. Review of grammar; composition; conversation based upon the texts read. *Professor CROWELL and Mr. KEENAN.*

Three hours. Through the year. Elective for students who have credit for 1, 2. *1st div., Mon., Wed., Th., at 10.20; 2d div., Tu., Wed., Sat., at 9.20.*

5, 6. *Intermediate Course*

Reading of modern German stories of the type found in Baker's *German Stories*, lyrics (von Klenze or Hatfield), and one or two dramas of the classical period. Review of grammar; composition; conversation based upon the texts read. *Messrs. BACHMANN and SIEVERS.*

Three hours. Through the year. Elective for Freshmen who presented elementary German for admission. Not elective for students who have taken German in college. *1st div., Wed., Fri., Sat., at 11.20; 2d div., Tu., Fri., Sat., at 10.20; 3d div., Mon., Wed., Th., at 10.20.*

‡ Students wishing recommendations from the department to teach German must pass a special examination designed to test their ability to write and to understand German, and, to some extent, to use the spoken language.

7, 8. *Advanced Course in Standard Authors, Classical and Modern*  
One drama of Goethe or Schiller, one drama of Grillparzer, one drama of Hebbel, von Klenze's *Deutsche Gedichte*, a modern novel like Sudermann's *Frau Sorge*. Talks in German on the history of German literature; oral and written reports in German. *Mr. BACHMANN.*

Three hours. Through the year. Elective for students who have credit for 3, 4; 5, 6; or 9, 10, or who presented advanced German for admission. *Mon., Tu., Th., at 11.20.*

### 9, 10. *Modern Prose*

Aims to train the student in reading, speaking, writing, and understanding modern German. Reading of texts selected from fiction, history, and science; for example, Lilieneron, Keller, Freytag, Helmholtz, Nichols's *Modern German Prose*, Paszkowski's *Lesebuch zur Einführung in die Kenntnis Deutschlands und seines geistigen Lebens*, 4th ed., and a text (such as Mosher's *Willkommen in Deutschland*) to introduce the student to the actual language of modern daily life. Talks in German; oral and written reports in German; letter-writing, composition, and conversation. *Professor VON KLENZE and Mr. SIEVERS.*

Three hours. Through the year. Elective for students who have credit for 3, 4; 5, 6; or 7, 8, or who presented advanced German for admission. *Tu., Fri., Sat., at 10.20.*

### [11, 12. *German Lyrical Poetry*]

Introduces the student to the various aspects of the inner life of the German people as reflected in the lyrical poetry of the last two centuries. Lectures in German; oral and written reports in German.

Three hours. Through the year. Elective for students who have credit for 3, 4; 7, 8; or 9, 10. Not offered in 1911-12.

### [13, 14. *The German Short Story*]

The development of the short story into an art form. The study of the "Novelle" as represented by Kleist, Ludwig, Heyse, C. F. Meyer, Keller, and others, with frequent reference to the chief writers of the short story in France, England, and America. Lectures and reports in German and English. *Professor VON KLENZE.*

Three hours. Through the year. Elective for students who have credit for 3, 4; 7, 8; or 9, 10. Not offered in 1911-12.

### [15, 16. *The German Drama of the Nineteenth Century*]

Kleist, Grillparzer, Hebbel, Hauptmann, and Sudermann. A study of



the development of the German drama from waning romanticism to realism, with frequent reference to the chief representatives of the modern drama in other countries.

Three hours. Through the year. Elective for students who have credit for 3, 4; 7, 8; 9, 10. Not offered in 1911-12.

[17, 18. *Lessing and Schiller*]

Aims to introduce the student to the dramatic theory and practice of German classicism. Reading of one or two of Lessing's dramatic works and of several of the representative dramas of Schiller, especially *Wallenstein*. Discussions of the dramatic principles of the Greek and the English drama and of their influence upon Lessing and Schiller, with references to the dramatic theories of the nineteenth century. Lectures and reports in German and English. *Professor CROWELL*.

Three hours. Through the year. Elective for students who have credit for 7, 8; 9, 10. Not offered in 1911-12.

21, 22. *Goethe's Faust: Parts 1 and 2*

Interpretation of the text; study of the Faust legend and of other English and German dramas which present the Faust problem. Lectures and reports in German and English. *Professor CROWELL*.

Three hours. Through the year. Elective for students who have credit for 7, 8; 9, 10. *Mon., Th., Fri., at 9.20.*

[23, 24. *Goethe: A Study of His Life and Works*]

Lectures in German; reports on assigned topics; extensive reading. *Professor VON KLENZE*.

Three hours. Through the year. Elective for students who have credit for 7, 8; 9, 10. Not offered in 1911-12.

25, 26. *Outline History of German Literature*

Aims to acquaint the student with the most important movements in the evolution of German literary life. Lectures in German; reports on assigned topics; extensive reading. *Professor VON KLENZE*.

Three hours. Through the year. Elective for students who have credit for 7, 8; 9, 10. *Tu., Th., Sat., at 12.20.*

[27, 28. *German Literature in the Nineteenth Century*]

A study of the literary life of Germany as an expression of German civilization in the nineteenth century. The literary output—Roman-

tic School, Young Germany, Naturalism, Realism, Neo-Romanticism — will be studied, with frequent references to prominent personalities in other domains of intellectual life, such as David Friedrich Strauss, Mommsen, Nietzsche, Wagner, etc. *Professor VON KLENZE.*

Three hours. Through the year. Elective for students who have credit for 7, 8, 9, 10. Not offered in 1911-12.

### [31. *Gothic*]

The Gothic language, with reading of extracts in Streitberg's *Gotisches Elementarbuch* or Braune's *Gotische Grammatik*. *Professor CROWELL.*

Three hours. First semester. Elective for Graduates and approved Undergraduates. Not offered in 1911-12.

### [32. *Old High German*]

Grammar and reading of selections in prose and verse. Some knowledge of Gothic expected. Braune's *Althochdeutsche Grammatik* and Braune's *Althochdeutsches Lesebuch*. *Professor CROWELL.*

Three hours. Second semester. Elective for Graduates and approved Undergraduates. Not offered in 1911-12.

### 33. *Old Norse*

Holthausen's *Altisländisches Elementarbuch*; Wilken's *Prosaische Edda*; Hildebrand's *Aeltere Edda*. *Professor CROWELL.*

Three hours. First semester. Elective for Graduates and approved Undergraduates. Students electing Old Norse should also take Germanic Mythology. *Mon., Tu., Th., at 3.20.*

### 34. *Germanic Mythology*

Primitive Germanic religion, customs, and ideas, in their relations to German literature. Discussions based on E. Mogk's *Germanische Mythologie*. *Professor CROWELL.*

Three hours. Second semester. Elective for Graduates and approved Undergraduates. *Mon., Tu., Th., at 3.20.*

### 35, 36. *Middle High German*

The language of the Middle High German period, including an introduction to Germanic philology. Michel's *Mittelhochdeutsches Elementarbuch*; *Das Nibelungenlied*, *Minnesangs Frühling*, *Walter von der Vogelweide*. Lectures in German. Outside reading. *Professor VON KLENZE.*

Three hours. Through the year. Elective for Graduates and approved Undergraduates. *Wed., Fri., Sat., at 11.20.*

41, 42. *Seminary in German Literature*

Aims to give training in modern methods of investigation and criticism. To be conducted in German. *Professor* VON KLENZE.

Three hours. Through the year. Elective for Graduates and approved Under-graduates.

## XIII. GREEK LITERATURE AND HISTORY

JAMES IRVING MANATT, PH.D., LL.D., *Professor of Greek Literature and History*

FRANCIS GREENLEAF ALLINSON, PH.D., *David Benedict Professor of Classical Philology*

HORACE EDGAR JACOBS, A.M., *Assistant in Greek*

A, B. *Elementary Course*

Designed to cover as much as possible of the entrance requirements, and thus to enable a student to take 1 in the following year if he completes by private study before the opening of the first semester the requirement in Homer, and before the opening of the second semester the requirement in the *Anabasis*. *Mr.* JACOBS.

Three hours. Through the year. Elective for students who did not present elementary and advanced Greek for admission. *Tu., Th., Sat., at 12.20.*

1. *Homer and the Greek Anthology*

Six books of the *Odyssey* in the original, with a general survey of the entire poem. Selections from the Elegiac, Iambic, and Lyric Poets. *Professor* MANATT.

Three hours. First semester. Elective for students who presented elementary and advanced Greek for admission, or who have credit for A, B, and have done the additional work indicated above. *Tu., Th., Sat., at 12.20.*

2. *Lysias and Plato*

Lysias: *Orations* VII, XII, XXIII, with collateral reading of Xenophon's *Hellenica*, II. Plato: *Apology* and *Crito*, with selections from *Phaedo*, and collateral readings from the *Euthyphron*, Xenophon's *Memorabilia*, and the *Clouds* of Aristophanes. *Professor* ALLINSON.

Three hours. Second semester. Elective for students who have credit for 1. *Tu., Th., Sat., at 12.20.*

3. *Lucian and the Dramatic Poets*

Selections from Lucian. Lectures on the Greek drama. The *Prometheus*

of Aeschylus, and *Oedipus Tyrannus* of Sophocles. *Professor ALLINSON.*  
Three hours. First semester. Elective for Sophomores. *Mon., Wed., Th., at 10.20.*

#### 4. *The Historians*

The eighth book of Herodotus, with collateral reading of the *Persians* of Aeschylus and Plutarch's *Themistocles*. The seventh book of Thucydides, with collateral reading of Plutarch's *Pericles* and *Nicias*. *Professor MANATT.*

Three hours. Second semester. Elective for Sophomores. *Mon., Wed., Th., at 10.20.*

#### 5. *Epic Poetry*

The *Iliad*, xviii-xxiv, with general study of the poem as a whole. Hesiod: selections from the *Theogony* and the *Works and Days*. Selected Homeric Hymns. *Professor MANATT.*

Three hours. First semester. Elective for Juniors and Seniors. Hours to be arranged with the instructor. *Mon., Th., at 8; Fri. at 12.20.*

#### 6. *The Drama*

Menander; Aeschylus: *Seven against Thebes*; Euripides: *Medea*; Aristophanes: *Frogs*. *Professor ALLINSON.*

Three hours. Second semester. Elective for Juniors and Seniors. Hours to be arranged with the instructor.

#### [7. *Lyric and Pastoral Poetry*]

Pindar: selected Olympian and Pythian Odes; Bacchylides, v, xvii, xviii; Theocritus: Twelve *Idylls*. *Professor MANATT.*

Three hours. First semester. Elective for Juniors and Seniors. Not offered in 1911-12.

#### [8. *Plato, Aristotle, and Aeschylus*]

Plato: selections from the *Republic*. Aristotle: the *Constitution of Athens*. Aeschylus: the *Agamemnon*, with collateral reading of the rest of the *Oresteia*. *Professor ALLINSON.*

Three hours. Second semester. Elective for Juniors and Seniors. Not offered in 1911-12.

#### [9. *The Attic Orators*]

Select speeches of Isacus, Aeschines, and Demosthenes. *Professor MANATT.*

Three hours. First semester. Elective for Juniors and Seniors. Not offered in 1911-12.

[10. *Lucian and Pausanias*]

*Professor ALLINSON.*

Three hours. First semester. Elective for Juniors and Seniors. Not offered in 1911-12.

12. *Greek Composition*

*Professor ALLINSON.*

One hour. Second semester. Elective for Sophomores, Juniors, and Seniors.

13, 14. *Modern Greek*

Introduction to the language; readings from living Greek authors and Greek newspapers; conversation. *Professor MANATT.*

One hour. Through the year. Elective for Sophomores, Juniors, and Seniors.

15. *Greek Civilization*

The life of the Greeks from Homer to the second century after Christ, with an especial study of the political, social, and religious institutions of the classical period as illustrated by the literature, history, and monuments of art. Followed in the second semester by Latin 16, Roman Civilization. The two semesters together constitute the course in Classical Civilization. *Professor ALLINSON.*

Three hours. First semester. Required of all candidates for the degree of Bachelor of Philosophy. Elective for others. *1st div., Mon., Th., Fri., at 9.20; 2d div., Mon., Tu., Th., at 11.20.*

17, 18. *Greek Seminary*

First semester, Hesiod and the Homeric Hymns. *Professor MANATT.*  
Second semester, Lucian and Pausanias. *Professor ALLINSON.*

Three hours. Two hours of attendance. Through the year. Elective for Graduates and approved Seniors.

## XIV. HISTORY ‡

WILLIAM MACDONALD, PH.D., LL.D., *George L. Littlefield Professor of American History*

THEODORE FRELINGHUYSEN COLLIER, PH.D., *Associate Professor of History*

1, 2. *Medieval and Modern History of Europe*

A general survey of the history of western Europe from the time of the barbarian invasions to the present. A narrative text-book supplemented by lectures, frequent written tests, written reports and abstracts on assigned reading, and topics for special investigation. *Professor MACDONALD.*

Three hours. Through the year. Required of candidates for the degree of Bachelor of Arts in either the Sophomore or the Junior year, and for candidates for the degree of Bachelor of Philosophy in either the Freshman, Sophomore, or Junior year. *Mon., Tu., Th., at 2.20.*

3. *Period of the Renaissance*

The breaking-down of the medieval social system and the rise and consolidation of national monarchies; the classical revival and the emancipation of learning; secularization and corruption of the church; social unrest and revolutionary outbreaks; geographical discoveries and economic changes. *Professor COLLIER.*

Three hours. First semester. Elective for Juniors, Seniors, and Graduates. Introductory to and a prerequisite for 4. *Tu., Th., Sat., at 12.20.*

4. *Period of the Reformation*

The protestant revolt under Luther and Calvin; the Church of England; Hapsburg imperialism and the balance of power; the Counter-Reformation and religious wars; the Thirty Years' war; the Puritan revolution and the revolution of 1689 in England; Louis XIV and seventeenth century absolutism. *Professor COLLIER.*

Three hours. Second semester. Elective for Juniors, Seniors, and Graduates who have credit for 3. *Tu., Th., Sat., at 12.20.*

5. *The French Revolution and the Napoleonic Era*

A brief survey of the political development of western Europe from 1715 to 1789, followed by a more detailed study of the conditions

‡ The elective courses in History are regularly open only to those who have credit for 1; but, by special permission of the instructor, elective courses may be taken by those who are at the same time taking 1.

in France on the eve of the Revolution, the course of the Revolution itself, and the rise and overthrow of Napoleon. *Professor COLLIER.*

Three hours. First semester. Elective for Juniors, Seniors, and Graduates. *Tu., Fri., Sat., at 10.20.*

#### 6. *Europe since 1815*

The reconstruction of Europe after the fall of Napoleon; the system of Metternich; the revolutions of 1830 and 1848; the second French empire; the unification of Italy; the founding of the German Empire; the third French republic; the formation of the dual monarchy of Austro-Hungary; Russia and the Eastern question; the dual and triple alliances. *Professor COLLIER.*

Three hours. Second semester. Elective for Juniors, Seniors, and Graduates. Should preferably be preceded by 5. *Tu., Fri., Sat., at 10.20.*

#### [7, 8. *English Constitutional and Political History to 1714*]

The formation and early development of the English constitution; the Hundred Years' war and the decline of feudalism; the Tudor dynasty; the Reformation in England; sea power, commerce, colonization; the Puritan revolution and revolution of 1689; beginnings of party government and the cabinet system.

Three hours. Through the year. Elective for Juniors, Seniors, and Graduates. Either semester may be elected independently, but 8 should preferably be preceded by 7. Not offered in 1911-12. To be offered in 1912-13.

#### 9, 10. *English Constitutional and Political History since 1714*

The internal political and constitutional development of England under the Hanoverians; the expansion of England into a colonial world empire; the party politics and international relations of the nineteenth century. *Professor COLLIER.*

Three hours. Through the year. Elective for Juniors, Seniors, and Graduates. Either semester may be elected independently, but 10 should preferably be preceded by 9. *Mon., Tu., Th., at 2.20.*

#### 11, 12. *Seminary in European History*

Detailed study of a limited period or of a special phase of social or political development, with a view to training in historical investigation and the use of sources. *Professor COLLIER.*

Three hours. One to two hours of attendance. Through the year. Elective for Graduates and approved Seniors.

13, 14. *American History*

A general course, covering the whole period from the beginnings of English colonization to the present time. Intended as an introduction to the advanced courses in American history and for students who wish only a general survey of the subject. *Professor MACDONALD.*

Three hours. Through the year. Elective for Juniors, Seniors, and Graduates. Either semester may be elected independently, but 14 should preferably be preceded by 13. *Wed., Fri., Sat., at 11.20.*

15, 16. *Constitutional and Political History of the United States*

An advanced course covering the period from 1783 to the present time. Intended primarily for students who wish to specialize in American history or who expect to study law. *Professor MACDONALD.*

Three hours. Two hours of attendance. Through the year. Elective for Juniors, Seniors, and Graduates. *Mon., Wed., at 12.20.*

17, 18. *Seminary in American History*

Designed to afford training in historical investigation and practice in the use of sources. The subjects vary from year to year, and are drawn from both the colonial and the constitutional periods. For 1911-12 the subjects are: First semester, The Relations between the American Colonies and England, 1689-1740. Second semester, The Administrations of Monroe, 1817-1825. *Professor MACDONALD.*

Three hours. One to two hours of attendance. Through the year. Elective for Graduates and approved Seniors. The course should be preceded by 13, 14, or 15, 16, but in exceptional cases may be taken by students who at the same time are taking 13, 14, or 15, 16.

19. *Principles of Historical Criticism and Research*

The general principles of historical criticism and the literature of historical theory. *Professor MACDONALD.*

One hour. One semester. Elective for Graduates of one year's standing. Required of all candidates for the degree of Doctor of Philosophy in History.

## XV. INDO-EUROPEAN PHILOLOGY

FRANCIS GREENLEAF ALLINSON, PH.D., *David Benedict Professor of Classical Philology*

[2. *General Introduction to the Study of Language*]

Outline of the history of language; the Indo-European family.



Adapted for students of ancient or modern languages.

Three hours. Second semester. Elective for Freshmen and Sophomores. Not offered in 1911-12.

#### 4. *Seminary in Comparative Philology*

For advanced students in Greek and Latin.

Three hours. One two-hour session weekly. Second semester. Elective for Graduates and approved Seniors.

#### 5, 6. *Sanskrit, Elementary Course*

Whitney's *Grammar*; Lanman's *Reader*; selections from the *Vedic Hymns*.

Three hours. Through the year. Elective for Juniors, Seniors, and Graduates.

#### [7, 8. *Sanskrit, Advanced Course*]

*Vedic Hymns*, and other selections.

One hour. Through the year. Elective for students who have credit for 5, 6. Not offered in 1911-12.

### XVI. MATHEMATICS ‡

NATHANIEL FRENCH DAVIS, A.M., LL.D., *Professor of Pure Mathematics*

HENRY PARKER MANNING, PH.D., *Associate Professor of Pure Mathematics*

ROLAND GEORGE DWIGHT RICHARDSON, PH.D., *Assistant Professor of Pure Mathematics*

RAYMOND CLARE ARCHIBALD, PH.D., *Assistant Professor of Pure Mathematics*

CLINTON HARVEY CURRIER, A.M., *Instructor in Mathematics*

#### 1 a. *Solid and Spherical Geometry*

Professors DAVIS and MANNING, Mr. CURRIER.

Three hours. First semester. Required of candidates for the degree of Bachelor of Arts who presented only Algebra and Plane Geometry for admission. *One division, Tu., Fri., Sat., at 8; one division, Mon., Th., Fri., at 9.20; one division, Tu., Wed., Sat., at 9.20.*

‡ The Undergraduate courses should be taken in the order 1, 2 (or 3, 4), 5, 6, 7, 8, 9, 10. Courses 3, 4, and 14 should be taken as opportunity offers in connection with the other courses. Courses 9a, 17, 18, 19, 20 are for candidates for the degree of Bachelor of Science.

Courses 21-30 are designed for Graduates. Two or three of these courses are offered each year according to the needs of students. For those who have taken all of them, other courses can usually be arranged. Courses 9, 10, 14, and 21 to 30 inclusive may not be given unless elected by three students.

## 2 a. *Trigonometry*

*Professor MANNING and Mr. CURRIER.*

Three hours. Second semester. Required of candidates for the degree of Bachelor of Arts who presented only Algebra and Plane Geometry for admission. *One division, Tu., Fri., Sat., at 8; one division, Mon., Th., Fri., at 9.20; one division, Tu., Wed., Sat., at 9.20.*

## 1 b. *Solid and Spherical Geometry*

*Professor MANNING and Mr. CURRIER.*

Three hours. First semester. For candidates for the degree of Bachelor of Philosophy who presented only Algebra and Plane Geometry for admission. Required of those who do not elect to take Argumentation in the Sophomore year. Elective for others. *One division, Mon., Th., Fri., at 9.20; one division, Tu., Wed., Sat., at 9.20.*

## 2 b. *Trigonometry*

*Professor RICHARDSON and Mr. CURRIER.*

Three hours. Second semester. For candidates for the degree of Bachelor of Philosophy who presented only Algebra and Plane Geometry for admission. Required of those who do not elect to take Argumentation in the Sophomore year. Elective for others. *One division, Mon., Th., Fri., at 9.20; one division, Tu., Wed., Sat., at 9.20.*

## 3, 4. *Algebra*

Designed for those who wish to specialize in mathematics, and for those who are planning to teach mathematics in the secondary schools.

*Professor ARCHIBALD.*

Three hours. Through the year. Required of candidates for the degree of Bachelor of Arts who presented Solid Geometry and Plane Trigonometry for admission and do not take Mathematics 5, 6. Also required of candidates for the degree of Bachelor of Philosophy who presented Solid Geometry and Plane Trigonometry for admission and do not take Mathematics 5, 6, and do not elect to take Argumentation in the Sophomore year. Elective for others. *Mon., Th., Fri., at 9.20.*

## 5. *Plane Analytic Geometry*

*Professor ARCHIBALD.*

Three hours. First semester. Required of candidates for the degree of Bachelor of Arts who presented Solid Geometry and Plane Trigonometry for admission and do not take 3, 4. Also required of candidates for the degree of Bachelor of Philosophy who presented Solid Geometry and Plane Trigonometry for admission and do not take 3, 4, and do not elect to take Argumentation

in the Sophomore year. Elective for students who have credit for 1, 2. *Tu., Wed., Sat., at 9.20.*

### 6. *Differential Calculus*

*Professor ARCHIBALD.*

Three hours. Second semester. Required of candidates for the degree of Bachelor of Arts who presented Solid Geometry and Plane Trigonometry for admission and do not take 3, 4. Also required of candidates for the degree of Bachelor of Philosophy who presented Solid Geometry and Plane Trigonometry for admission and do not take 3, 4, and do not elect to take Argumentation in the Sophomore year. Elective for students who have credit for 5. Course 14 may be substituted for 6. *Tu., Wed., Sat., at 9.20.*

### 7, 8. *Differential and Integral Calculus*

A continuation of 6. *Mr. CURRIER.*

Three hours. Through the year. Elective for students who have credit for 6. Students are advised to take 14 before taking 8 or at the same time with it. *Tu., Th., Sat., at 12.20.*

### 9, 10. *Differential Equations*

*Professor MANNING.*

Three hours. Through the year. Elective for students who have credit for 7 or 20. *Tu., Th., Sat., at 12.20.*

### 9 a. *Differential Equations*

*Professor MANNING.*

Two hours. First semester. Required of candidates for the degree of Bachelor of Science in Electrical Engineering. *Tu., Th., at 12.20.*

### 14. *Solid Analytic Geometry*

*Professor ARCHIBALD.*

Three hours. Second semester. Elective for students who have credit for 5. May be taken in place of 6 as a required subject. *Mon., Wed., Fri., at 12.20.*

### 15, 16. *Spherical Trigonometry*

*Professor ARCHIBALD.*

One hour. Through the year. Elective for students who presented Plane Trigonometry for admission, and for those who have credit for 2, and have not taken Spherical Trigonometry in college. *Mon. at 9.20.*

### 17, 18. *Engineering Mathematics*

Advanced Algebra. Plane and Spherical Trigonometry, Analytic Ge-

ometry. *Professors* DAVIS, RICHARDSON, and ARCHIBALD, *Mr.* CURRIER. Six hours. Through the year. Required of candidates for the degree of Bachelor of Science. *Mon., Tu., Wed., Th., Fri., Sat., at 11.20.*

19, 20. *Differential and Integral Calculus*

*Professors* DAVIS and RICHARDSON.

Four hours. Through the year. Required of candidates for the degree of Bachelor of Science. *One division, Tu., Wed., Sat., at 9.20, Th. at 8; one division, Tu., Fri., Sat., at 10.20, Wed. at 8.*

21, 22. *Function Theory of a Complex Variable*

*Professor* MANNING.

Three hours. Through the year. Elective for Graduates and approved Seniors.

[23, 24. *Differential Equations, Advanced Course*]

Three hours. Through the year. Elective for Graduates who have credit for 21, 22. Not offered in 1911-12.

25, 26. *Advanced Algebra*

*Professor* RICHARDSON.

Three hours. Through the year. Elective for Graduates and approved Juniors and Seniors.

27, 28. *Differential Geometry*

*Professor* ARCHIBALD.

Three hours. Through the year. Elective for Graduates and approved Seniors.

[29, 30. *Function Theory of a Real Variable*]

Three hours. Through the year. Elective by special permission of instructor. Not offered in 1911-12.

## XVII. MECHANICAL ENGINEERING†

WILLIAM HERBERT KENERSON, M.E., A.M., *Associate Professor of Mechanical Engineering*

THURSTON MASON PHETTEPLACE, M.E., A.M., *Assistant Professor of Mechanical Engineering*

HENRY DEWEES CADY, *Instructor in Shop Practice*

JAMES ALEXANDER HALL, A.B., Sc.B., *Assistant in Mechanical Engineering*

1. *Wood-work*

Exercises in carpentry and wood-turning. Assigned reading and written reports. *Mr. CADY.*

Two hours. Five hours of attendance. First semester, *Tu., 2 to 5; Fri., 2 to 4.*

2. *Wood-work*

Exercises in pattern-making. Assigned reading and written reports. *Mr. CADY.*

Two hours. Five hours of attendance. Second semester, *Mon., Th., 2 to 4; Wed. at 11.20.*

3, 4. *Metal-work*

Exercises in chipping and filing; the use of machine tools; forging and hardening tools, etc. Assigned reading and written reports. *Mr. CADY.*

Two hours. Five hours of attendance. Through the year. First semester, *Mon. at 10.20; Tu., Fri., 2 to 4.* Second semester, *Wed., 2 to 4; Fri., 2 to 5.*

5. *Metal-work*

Exercises in chipping and filing; the use of machine tools; forging and hardening tools, etc. Assigned reading and written reports. *Mr. CADY.*

Three hours. Seven hours of attendance. First semester, *Tu., Fri., 2 to 5; Fri. at 9.20.*

6. *Wood-work*

Exercises in carpentry, wood-turning, and pattern-making. *Mr. CADY.* Three hours. Seven hours of attendance. Elective in either semester for Sophomores, Juniors, and Seniors, who have had instruction in drawing. First semester, *Tu., Fri., 2 to 5.* Second semester, *Mon., Th., 2 to 5.*

† All the courses in this department except 6 and 7 are required of candidates for the degree of Bachelor of Science in Mechanical Engineering, and with the exception of 1-5, are elective for other students.

### 7. *Metal-work*

Exercises in chipping and filing; the use of machine tools; forging and hardening tools, etc. *Mr. CADY.*

Three hours. Seven hours of attendance. Elective in either semester for Sophomores, Juniors, and Seniors, who have had instruction in drawing. First semester, *Tu., Fri., 2 to 5.* Second semester, *Mon., Th., 2 to 5.*

### 8. *Kinematics*

Velocity ratios, rolling surfaces, cams, and belting. Recitations, drawing, and the solution of problems. *Professor PHETTEPLACE.*

Three hours. Seven hours of attendance. Second semester. Elective for students who have credit for Mechanical Drawing 5. *Tu. at 11.20; 2.20 to 5.20; Fri., 2.20 to 5.20.*

### 9, 10. *Kinematics*

Gearing, linkwork, parallel motions, and gear trains; machine tools; the application of the principles involved. Recitations, drawing, and the solution of problems. *Professor PHETTEPLACE.*

Three hours. Seven hours of attendance. Through the year. Elective for students who have credit for 8 and for Mechanical Drawing 5. *Mon., 2.20 to 5.20; Wed. at 10.20; Th., 2.20 to 5.20.*

### 11, 12. *Machine Design*

Applications of the principles of mechanics and the strength of materials to the design of representative types of boilers, engines, and various mechanisms; solution of problems illustrating the method of designing bolts and nuts, keys, journals and bearings, fly-wheels, valve-gears, etc. Lectures, calculation, and drawing. *Professor PHETTEPLACE.*

Three hours. Six hours of attendance. Through the year. Elective for students who have credit for 9, 10, and Mechanics 2. *Mon., Th., 10.20 to 1.20.*

### 14. *General Engineering and Design*

Lectures; discussion of special engineering problems, patents and patent law, and cost systems. *Professors KENERSON and PHETTEPLACE.*

Three hours. Second semester. *Tu., Fri., 10.20 to 12.20*

### 15, 16. *Thermodynamics*

Applications of the principles of gases and vapors to steam, gas, and other heat engines, air-compressors, refrigerating apparatus, etc.; discussion of the energy of fuel and the utilization of such energy for power purposes by means of various media; laws of the relation

of variations of pressure, temperature, and volume of such media; analysis of the various cycles used in heat engines; the principles of the injector and the ejector. *Professor KENERSON and Mr. HALL.*

Three hours. Through the year. Elective for students who have credit for Physics 1, 2. *Tu., Wed., Sat., at 9.20.*

### 17, 18. *Engineering Practice*

Applications of the principles of thermodynamics and mechanics to the production, transmission, utilization, and measurement of power; valves and valve gears, and valve setting; indicator practice and tests of various forms of steam engines, gas engines, etc.; standardization of auxiliary apparatus used in making the various tests; boiler testing; flue gas and fuel analysis, etc. Lectures, recitations, and laboratory work. *Professor KENERSON and Mr. HALL.*

Three hours. Through the year. Elective for students who have credit for or are taking 15, 16. First semester, *Wed. at 8; Th., 2.20 to 4.20; Sat. at 10.20.* Second semester, *Wed., Fri., at 11.20; Sat. at 10.20; Th., 2.20 to 4.20.*

### 19, 20. *Materials of Engineering*

Study of the sources, manufacture, and properties of the important materials used in engineering; laboratory tests to determine the behavior of materials when subjected to tensile, compressive, and torsional stresses; mixing and testing of cements and mortars; preparation and examination of sections for the microscopical study of the structure of metals and alloys. Lectures, recitations, and laboratory work. *Professor KENERSON and Mr. HALL.*

Three hours. Through the year. Elective for students who have credit for or are taking Mechanics 1. *Tu., Fri., at 10.20. 1st div., Mon., 2.20 to 4.20; 2d div., Tu., 2.20 to 4.20; 3d div., Th., 2.20 to 4.20; 4th div., Mon., 9.20 to 11.20.*

### 21. *Power Plant Engineering*

Discussion of the relation and coördination of the various parts of the complete power plant; management, and methods of determining efficiency; selection of the best equipment from manufacturers' catalogues and actual inspection. Lectures, recitations, tests, and tours of inspection. *Professor PHETTEPLACE.*

Three hours. First semester. Elective for students who have credit for 15, 16. *Tu., Fri., 2.20 to 5.20; Wed., Sat., at 9.20.*

### 22. *Advanced Laboratory Course*

Investigation of special problems in hydraulic and steam engineer-

ing. Determination of experimental constants for the Venturi meter; flow of water over weirs and through pipes, flow of air, steam, etc. Particular emphasis laid on preparation and form of reports. *Professor KENERSON and Mr. HALL.*

Three hours. Second semester. *Tu., Fri., 2 to 5.*

#### 24. *Applied Hydraulics*

Laboratory experiments in connection with Mechanics 4. *Professor KENERSON.*

One hour. Second semester. Must be taken with Mechanics 4 and Civil Engineering 34.

#### 25, 26. *Thesis*

A thesis is required of all candidates for the degree of Bachelor of Science in Mechanical Engineering. The thesis must embody a design or a review of an engineering plant, appliance, process, or structure, or the results of an experimental investigation.

### XVIII. MECHANICS AND MECHANICAL DRAWING

OTIS EVERETT RANDALL, PH.D., *Professor of Mechanics and Mechanical Drawing*

ANSEL BROOKS, PH.B., M.E., *Associate Professor of Mechanics and Mechanical Drawing*

JOHN JOSEPH LONG, PH.B., *Instructor in Mechanical Drawing*

#### MECHANICS

##### 1, 2. *Mechanics of Solids*

Statics, including resolution and composition of forces, determination of center of gravity, and problems relative to rigid bodies and flexible cords; dynamics, including rectilinear and curvilinear motion, virtual velocity, moment of inertia, work, energy and power, and friction; strength of materials, including tension, compression, shearing, torsion, and flexure; methods of graphical solution of problems. *Professors RANDALL and BROOKS.*

Four hours. Through the year. Required of all candidates for the degree of Bachelor of Science. Elective for students who have credit for or are taking Mathematics 7, 8. *Mon., Tu., at 11.20; Th., 10.20 to 12.20.*



### 3. *Mechanics of Fluids*

Hydrostatics; nature and use of instruments; flow through orifices, over weirs, through tubes, through pipes, in conduits; flow of rivers; water supply and water power. *Professors RANDALL and BROOKS.*

Three hours. First semester. Required of all candidates for the degree of Bachelor of Science. Elective for students who have credit for 1, 2. *Wed., Fri., Sat., at 11.20.*

### 4. *Applied Hydraulics*

Dynamics of water; theoretical consideration of water wheels, pumps, and pumping machinery. *Professors RANDALL and BROOKS.*

One hour. Second semester. Required of all candidates for the degree of Bachelor of Science. Elective for students who have credit for 3. Must be taken in connection with Civil Engineering 34, and Mechanical Engineering 24. *Wed. at 11.20.*

### 5, 6. *Mathematical Mechanics*

Comprehensive treatment of the principles of statics and dynamics; strength of materials; higher theoretical and practical problems. Intended primarily for students who are interested in the application of the principles of pure mathematics. *Professor RANDALL.*

Three hours. Through the year. Elective for Seniors and Graduates who have credit for or are taking Mathematics 7, 8.

## MECHANICAL DRAWING

### 1, 2. *Elementary Mechanical Drawing*

Nature, care, and use of drafting instruments; lettering; plane problem construction; curve tracing; elementary projection. *Professor BROOKS and Mr. LONG.*

Two hours. Four hours of drawing. Through the year. Required in the Freshman year of candidates for the degree of Bachelor of Science. *Tu., Fri., 2.20 to 4.20.*

### 3, 4. *Descriptive Geometry*

Discussion, proof, and graphic solution of problems relating to the point, line, and plane, line and surface generation and classification, surface tangency, intersections, and developments; application of the principles of descriptive geometry in isometric drawing, shades and shadows and perspective, machine drawing, and practical engineering problems. *Professors RANDALL and BROOKS, Mr. LONG.*

Three hours. Two hours of recitation and three hours of drawing. Through the year. Required in the Sophomore year of candidates for the degree of Bachelor of Science. Elective for students who have credit for 7, 8. *Mon., Tu., Th., Fri., Sat., at 9.20; Tu., Sat., at 10.20.*

### 5. *Machine Drawing*

Study and representation of machine parts; the principles of elementary machine design; sketches, detail and assembly drawings of machines; practice in reading drawings. *Professor Brooks and Mr. LONG.*

Three hours. One hour of recitation and eight hours of drawing. First semester. Required of candidates for the degree of Bachelor of Science in Mechanical Engineering or Electrical Engineering. Elective for students who have credit for 7, 8. *Tu. at 12.20; Mon., Th., 2.20 to 5.20.*

### 7, 8. *Elementary Mechanical Drawing*

Nature, care, and use of drafting instruments; lettering; plane problem construction; curve tracing; elementary projection. *Professor Brooks and Mr. LONG.*

Three hours. Six hours of drawing. Through the year. Elective for all Undergraduates. *Tu., Fri., 2.20 to 4.20; Wed., 2 to 6.*

## XIX. MUSIC

HAMILTON CRAWFORD MACDOUGALL, MUS.D., *Lecturer in Music*

### 1. *The Symphony*

The development of the symphony from its earliest forms to the present day. Designed to give familiarity with modern music, its history and appreciation. Assigned readings, oral tests, and written reports.

Three hours. First semester. Elective for Sophomores, Juniors, and Seniors. No previous knowledge of music required. *Mon., Th., at 10.20*, and a third hour at the pleasure of the instructor.

### 2. *Elementary Harmony*

A course in elementary composition. Frequent oral tests and daily written exercises in the construction and use of chords and the harmonization of melodies.

Three hours. Second semester. Elective for Sophomores, Juniors, and Seniors. No previous knowledge of music required. *Mon., Th., at 10.20*, and a third hour at the pleasure of the instructor.

## XX. PHILOSOPHY

WILLIAM HERBERT PERRY FAUNCE, A.M., D.D., LL.D., *Professor of Moral and Intellectual Philosophy*

EDMUND BURKE DELABARRE, PH.D., *Professor of Psychology*

WALTER GOODNOW EVERETT, PH.D., *Professor of Philosophy and Natural Theology*

ALEXANDER MEIKLEJOHN, PH.D., *Professor of Logic and Metaphysics*

ERNEST TROWBRIDGE PAINE, A.M., *Assistant in Philosophy*

HARRIS MERRILL BARBOUR, A.B., B.D., *Assistant in Philosophy*

### 1, 2. *Logic*

A study of the aims, concepts, problems, methods, and results of thinking; a preparation for work in the sciences and in philosophy. The main topics are the logic of deduction, the definition of truth, and the relations of science, philosophy, and religion. *Professor MEIKLEJOHN.*

Three hours. Through the year. Elective for Sophomores and Juniors. *Mon., Th., Fri., at 9.20.*

### 3, 4. *Psychology and Ethics*

First semester: Psychology. A survey of the main facts and laws of mental life, aiming to provide a sound foundation for further acquaintance with this and allied subjects, for an improved judgment in dealing with many practical problems, and for understanding the psychological bases of philosophy. Second semester: Ethics. An introductory course dealing in a concrete way with the moral values of daily experience, and intended to aid the student in forming a practical philosophy of life. First semester, *Professor DELABARRE.* Second semester, *Professor EVERETT.*

Three hours. Through the year. Elective for Sophomores, Juniors, and Seniors. Either semester may be elected independently by Seniors only. In 1911-12, Juniors and Seniors who desire a full year's introductory course in Psychology may continue 3 through the second semester. *Tu., Wed., Sat., at 9.20.*

### 5, 6. *Psychology, Intermediate Course*

A study of the fundamental principles on which a scientific system of psychology must be based. The nature and composition of consciousness, its relation to bodily processes, and its complete subjection to law. The criteria for accepting evidence and forming sound judgments in connection with the problems of so-called "psychical

research." In 1911-12 this course will be conducted as a seminary.  
*Professor DELABARRE.*

Three hours. Through the year. Elective for Juniors, Seniors, and Graduates who have credit for a course in Psychology.

### 7, 8. *History of Philosophy*

The successive philosophical systems as revealing the logical development of European philosophy. The treatment also aims to exhibit the significant relations which philosophy has sustained to civilization, especially in its fundamental political, scientific, religious, and cultural elements. *Professor EVERETT.*

Three hours. Through the year. Elective for Juniors, Seniors, and Graduates. *Mon., Th., Fri., at 9.20.*

### 9. *Philosophy of Religion*

A study of the nature of the religious consciousness, and of the ultimate problems of religious psychology and belief. *Professor EVERETT.*

Three hours. First semester. Elective for Juniors, Seniors, and Graduates who have credit for a year course in Philosophy. *Tu., Wed., Sat., at 9.20.*

11, 12. *Experimental Psychology, Introductory Laboratory Course*  
 Description of the main lines and results of experimental research; demonstrations by the instructor or the class; training in the use of apparatus and in careful scientific observation and measurement.  
*Professor DELABARRE.*

Three hours. Six hours of attendance. Through the year. Elective for Juniors, Seniors, and Graduates who have credit for 3. Although essentially a year course, it may, by special arrangement with the instructor, be taken for one semester.

### 13, 14. *Problems of Modern Philosophy*

A seminary course designed to give acquaintance with current philosophical problems and discussions. *Professor MEIKLEJOHN.*

Three hours. Through the year. Elective for Seniors and Graduates who have credit for a year course in Philosophy.

### [15, 16. *Kantian and Post-Kantian Philosophy*]

Kant's *Critique of Pure Reason* studied as a source of modern philosophical theories.

Three hours. Through the year. Elective for Seniors who have credit for 7, 8, and for Graduates. Not offered in 1911-12.

[17, 18. *Psychology, Advanced Course*]

A seminary for the discussion of important problems in psychology. The problems discussed will vary, and the course may be extended over several years if desired.

Three hours. Through the year. Elective for Juniors, Seniors, and Graduates who have credit for 3. Not offered in 1911-12. See 5, 6.

19, 20. *Experimental Psychology, Advanced Laboratory Course*

The aim is to study further the problems of experimental psychology, and, whenever possible, to make original contributions to scientific knowledge. The problems investigated vary, and the course may be taken two or more years in succession. *Professor DELABARRE.*

One to six hours. Two to twelve hours of attendance. Through the year. Elective for students who have credit for 11, 12. May be taken for more than six hours by Graduates.

[20, 21. *Advanced Ethics*]

A seminary course for the study of the more important problems of ethical theory. Lectures, written reports, and discussions.

Three hours. Through the year. Elective for Seniors and Graduates who have credit for a year course in philosophy. Not offered in 1911-12.

23, 24. *Philosophical Seminary*

A seminary for the study of the problems of historical and contemporary thought. Reading, written reports, and discussions. Subject for 1911-12: Historical and critical study of Christian ethics. *Professor EVERETT.*

Three hours. Through the year. Elective for Seniors and Graduates who have credit for a year course in philosophy.

## XXI. PHYSICS

CARL BARUS, PH.D., LL.D., *Hazard Professor of Physics*

ALBERT DEFOREST PALMER, PH.D., *Associate Professor of Physics*

ARTHUR EUGENE WATSON, PH.D., *Assistant Professor of Physics*

ROBERT FRANKLIN FIELD, A.M., *Instructor in Physics*

1, 2. *Elementary Physics* ‡

First semester, dynamics, molecular physics, and heat. Second semes-

‡ Students who intend to teach physics should elect courses 1, 2; 3, 4; 5, 6.

ter, optics, acoustics, and electricity. The more elementary features of the subjects discussed. Lectures illustrated by experiments and the lantern; weekly written exercises. Designed for those who have had little previous training in physics. *Professor BARUS.*

Three hours. Through the year. Required of all candidates for the degree of Bachelor of Science. Elective for Undergraduates who have credit for entrance algebra and plane geometry. *Mon., Wed., Th., at 10.20.*

### 3, 4. *Elementary Physics, continued*†§

Treats the more advanced parts of the subjects taken in the same order as in the preceding course. *Professor BARUS.*

Three hours. Through the year. Elective for students who have credit for 1, 2, and Mathematics 1, 2. *Tu., Fri., Sat., at 10.20.*

### 5, 6. *Experimental Physics*‡

An introduction to the theory and practice of physical manipulation. Experimental study of physical phenomena selected to meet the needs of individual students. Written reports and solution of problems. *Professor PALMER.*

Three hours. Six hours of attendance. Through the year. Elective for students who have credit for 1, 2.

### 7, 8. *Mathematical Treatment of Dynamical Problems*||

First semester, discussion of the general principles of dynamics and the development of the general equations of motion. Second semester, application of these principles to special problems in thermodynamics and hydrodynamics. *Professor PALMER.*

Three hours. Through the year. Elective for Seniors and Graduates who have credit for 5, 6, and Mathematics 9, 10.

### 9, 10. *Mathematical Theory of Electricity and Magnetism*||

Includes a discussion of the more important problems of electrical science. *Professor PALMER.*

Three hours. Through the year. Elective for Graduates and Seniors who have credit for 5, 6, and Mathematics 9, 10.

‡ Students who intend to teach physics should elect courses 1, 2; 3, 4; 5, 6.

§ Graduates taking course 3, 4 are held responsible for all the demonstrations, or for the full equivalent of either Watson's or Daniel's *Principles of General Physics.*

|| In determining which of the two courses 7, 8, and 9, 10, shall be offered in any given year, the preference of students will be considered.

### 11, 12. *Advanced Laboratory Course*

Special problems and reference to original sources for methods of solution. *Professors BARUS, PALMER, and WATSON.*

Three or six hours. Six or twelve hours of attendance. Through the year. Elective for students who have credit for 5, 6.

### 13, 14. *Applied Harmonic Analysis and Applied Vector Analysis* ‡

Importance of Fourier's method shown by examples drawn from the analytical theory of heat, from elastics, alternating electricity, and elsewhere; treatment by the aid of spherical harmonics. Bessel functions, and Lamé functions; the chief theorems of vector analysis produced and applied to dynamics, elastics, hydrodynamics, the electro-magnetics of Maxwell and Hertz, and the electronic theory of Heaviside, Lorentz, and others. *Professor BARUS.*

Three hours. Through the year. Required in the second semester of candidates for the degree of Bachelor of Science in Electrical Engineering. Elective for Seniors and Graduates who have credit for 1, 2, and Mathematics 7, 8.

### 15, 16. *Physics, Advanced Course* ‡

Lectures on dynamics, potential, elastics, hydrostatics, hydrodynamics, viscosity, capillarity, electrostatics, magnetism, electro-magnetism, thermo-electrics, induction, Fresnel's optics, the electro-magnetic theory of light, thermal analytics, and thermodynamics. *Professor BARUS.*

Three hours. Through the year. Elective for Juniors, Seniors, and Graduates who have credit for Mathematics 7, 8.

### 21, 22. *Theory of Measurements*

Lectures and recitations on the theory and precision of measurements, and on methods of taking, recording, and reducing observations; laboratory instruction in selected physical measurements. *Professor PALMER and Mr. FIELD.*

Three hours. Five hours of attendance. Through the year. Required of all candidates for the degree of Bachelor of Science. Elective for students who have credit for 1, 2, and Mathematics 7, 8, or 19, 20. *1st div., Mon., Tu., at 12.20; 2d div., Mon., Th., at 12.20.* Laboratory hours will be posted in 11 Wilson Hall on the first day of each term.

‡ In determining the content of courses 13, 14, and 15, 16, the preference of students will be considered.

*23, 24. Precision Measurements in Photometry, Electricity, and Magnetism*

*Professor PALMER.*

Four hours. Eight hours in the laboratory. Through the year. Elective for students who have credit for 5, 6 or 21, 22, and Mathematics 7, 8 or 19, 20.

*25, 26. Radiation, Optics, and Heat*

Experimental study of selected phenomena; demonstrations and personal conferences. *Professor PALMER.*

Three or six hours. Six or twelve hours in the laboratory. Through the year. Elective for students who have credit for 5, 6 or 21, 22.

ELECTRICAL ENGINEERING‡

*Professor WATSON and Mr. FIELD*

*1, 2. General Course*

Methods of generating and utilizing electric currents; theory and working of dynamo-electric machinery.

Three hours. Two hours of recitation or lecture and two hours in the laboratory. Elective for students who have credit for or are taking Physics 5, 6 or 21, 22, and Mathematics 6 or 19. First semester, *Mon., Th., at 9.20*. Second semester, *Mon., Fri., at 9.20*. Laboratory assignments for afternoons.

*3, 4. Alternating Currents*

Mathematical and graphical treatment.

Three hours. Two hours of recitation or lecture and two hours in the laboratory. Through the year. Elective for students who have credit for 2, and who have credit for or are taking Mathematics 9 or 9 a. *Tu., Fri., at 10.20*. Laboratory assignments for afternoons.

*6. Calculation and Design of Direct Current Electrical Machinery*

Three hours. Second semester. Must be taken with 2. Not elective. *Tu., Wed., Th., at 9.20*.

*7. Telegraph and Telephone Engineering*

Three hours. First semester. Elective for students who have credit for 2. *Mon., Wed., Th., at 10.20*.

‡ All the courses in this department are required of candidates for the degree of Bachelor of Science in Electrical Engineering. Courses 1 and 2 are required of candidates for the degree of Bachelor of Science in Mechanical Engineering. Course 1 is required of candidates for the degree of Bachelor of Science in Civil Engineering.



### 8. *Alternating Current Machinery*

Calculation and design of generators, motors, transformers, etc.

Three hours. Second semester. Must be taken with 10. Elective for students who have credit for 1, 2, and 3. *Mon., Th., Fri., at 9.20.*

### 10. *Power and Lighting Stations*

Equipment and systems of distribution.

Three hours. Second semester. Must be taken with 8. Elective for students who have credit for 1, 2, and 3. *Mon., Wed., Th., at 10.20.* Weekly trips of inspection.

### 12. *Electrical Engineering Problems*

Reading and discussion. Seminary method.

One hour. Second semester. Not elective. *Mon. at 11.20.*

### 13, 14. *Thesis*

A thesis is required of all candidates for the degree of Bachelor of Science in Electrical Engineering. The thesis must embody a design or a review of an engineering plant, appliance, process, or structure, or the results of an experimental investigation.

## XXII. ROMAN LITERATURE AND HISTORY

ALBERT GRANGER HARKNESS, A.M., LITT.D., *Professor of Roman Literature and History*

JOHN FRANCIS GREENE, A.M., *Associate Professor of Roman Literature and History*

### 1. *Livy*

Designed to enable the student to acquire facility in reading Latin, and to instruct him in the use of the Latin texts as a means of gaining a knowledge of Roman history; grammatical study and literary criticism also receive attention. *Professors HARKNESS and GREENE.*

Three hours. First semester. Elective for students who presented elementary and advanced Latin for admission. *1st div., Wed., Fri., Sat., at 11.20; 2d div., Tu., Th., Sat., at 12.20.*

### 2. *Cicero's Letters*

Aims and methods as in 1. *Professors HARKNESS and GREENE.*

Three hours. Second semester. Elective for students who presented elementary and advanced Latin for admission. *1st div., Wed., Fri., Sat., at 11.20; 2d div., Tu., Th., Sat., at 12.20.*

### 3. *Horace's Odes and Epodes, Tibullus, Propertius*

Critical study of the poems, supplemented by rapid reading with a view to comprehending the spirit of the author; the literary side of the study is made prominent. Lectures; literary topics assigned to the class for special study. *Professor GREENE.*

Three hours. First semester. Elective for Sophomores. *Mon., Wed., Fri., at 12.20.*

### 4. *Horace's Satires, Juvenal*

Aims and methods as in 4. *Professor HARKNESS.*

Three hours. Second semester. Elective for Sophomores. *Mon., Wed., Fri., at 12.20.*

### 5, 6. *Latin Poetry*

Aims to give a connected and comprehensive view of the history and development of Latin poetry. Lectures on the lives and writings of the authors; reading of characteristic selections; special study by members of the class of assigned topics in literary history and criticism. First semester, Plautus. Second semester, Lucretius and Catullus. Forms with 7, 8 a two-year consecutive course affording a general survey of Roman literature. *Professors HARKNESS and GREENE.*

Three hours. Through the year. Elective for Juniors and Seniors. Either semester may be elected independently. *Tu., Wed., Sat., at 9.20.*

### [7, 8. *Latin Prose*]

Aims to give a connected and comprehensive view of the history and development of Latin prose. Lectures on the lives and writings of the authors, on the development of oratory, etc.; reading of characteristic selections; special study, by members of the class, of assigned topics in literary history and criticism. First semester, specimens of early Latin, Cicero's *Brutus*, and Quintilian. Second semester, the *Annals* of Tacitus. Forms with 5, 6 a two-year consecutive course affording a general survey of Roman literature. *Professors HARKNESS and GREENE.*

Three hours. Through the year. Elective for Juniors and Seniors. Either semester may be elected independently. Not offered in 1911-12.

### 9, 10. *Petronius, Pliny the Younger, Martial*

*Professor HARKNESS.*

One hour. Through the year. Elective for Juniors, Seniors, and Graduates. *Fri. at 2.20.*

11, 12. *Latin Composition*

Professor GREENE.

One hour. Through the year. Elective for Sophomores, Juniors, and Seniors. *Mon.* at 3.20.

13, 14. *History of the Roman Empire*

The Early Empire. The Age of the Antonines. The Age of Constantine. Professor GREENE.

Three hours. Through the year. Elective for Sophomores, Juniors, and Seniors. Either semester may be elected independently. *Tu., Wed., Sat.,* at 9.20.

16. *Roman Civilization*

An outline of Roman civilization and its influence on modern times. Special attention will be given to the literature and to the political and social life. No knowledge of Latin required. Preceded in the first semester by Greek 15, Greek Civilization. The two semesters together constitute the course in Classical Civilization. Professors HARKNESS and GREENE.

Three hours. Second semester. Required in the Freshman or Sophomore year of candidates for the degree of Bachelor of Philosophy. Elective for others. *1st div., Mon., Th., Fri.,* at 9.20; *2d div., Mon., Tu., Th.,* at 11.20.

17, 18. *Seminary in Latin*

Subject for 1911-12: Reading from the poetry of the Empire. Gude-  
man's *Latin Literature of the Empire*, vol. II. Questions in textual criticism and in the structure of Latin verse will be considered. Professors HARKNESS and GREENE.

Three hours. Two hours of attendance. Through the year. Elective for Graduates.

## XXIII. ROMANCE LANGUAGES AND LITERATURES

COURTNEY LANGDON, † A.B., *Professor of the Romance Languages and Literatures*

ALBERT BUSHNELL JOHNSON, A.M., *Associate Professor of the Romance Languages and Literatures*

CHARLES HERMAN HUNKINS, DR. de l'Université de Paris, *Assistant Professor of the Romance Languages and Literatures*

JUSTIN HOMER BACON, A.M., *Acting Assistant Professor of French*

GILBERT CHINARD, B. ès L., L. ès L., *Instructor in French*

1, 2. *Elementary Course, First Year*

Grammar, composition, dictation, conversation; translation of selections from modern authors into idiomatic English. *Professors* HUNKINS and BACON.

Three hours. Through the year. Elective for students who did not present French for admission. *1st div.*, Tu., Th., Sat., at 8; *2d div.*, Mon., Tu., Th., at 2.20.

[3, 4. *Elementary Course, Second Year*]

Reading of easy modern French prose in the form of stories, plays, or historical or biographical sketches; review of grammar; composition and conversation based upon the texts read.

Three hours. Through the year. Elective for students who have credit for 1, 2. Not offered in 1911-12.

5, 6. *Intermediate Course*

Reading of modern and classical authors; review of grammar; composition and conversation based upon the texts read; dictation. *Professors* HUNKINS and BACON, Mr. CHINARD.

Three hours. Through the year. Elective for students who have credit for 1, 2, or who presented elementary French for admission. *1st div.*, Wed., Fri., Sat., at 11.20; *2d div.*, Tu., Th., Fri., at 8; *3d div.*, Mon., Th., Fri., at 9.20; *4th div.*, Mon., Wed., Th., at 8.

7, 8. *Advanced Course*

An introduction to classical and modern French literature; composition; conversation based on the texts read; dictation. *Professors* HUNKINS and BACON, Mr. CHINARD.

Three hours. Through the year. Elective for students who have credit for

† On leave of absence during the academic year 1911-12.

5, 6, or who presented advanced French for admission. *1st div., Mon., Tu., Th., at 11.20; 2d div., Mon., Tu., Th., at 11.20; 3d div., Tu., Wed., Sat., at 9.20.*

### 9, 10. *The Realistic School*

Flaubert, Augier, the younger Dumas, the Goncourts, Daudet, Zola, Taine, Loti, and others; abstracts, in French, of works read outside the class; sight reading a prominent feature. *Professor JOHNSON.*

Three hours. Through the year. Elective for students who have credit for 7, 8. *Mon., Th., Fri., at 9.20.*

### 11, 12. *The Romantic School*

The history of the romantic school; reading of authors from Chateaubriand and Victor Hugo to Rostand; abstracts on outside reading. Lectures in English and in French. *Professor HUNKINS.*

Three hours. Through the year. Elective for students who have credit for 7, 8. *Wed., Fri., Sat., at 11.20.*

### 13, 14. *The Classical School*

The history of the classical school; its formation, its apogee, and its decline. Lectures in French. *Mr. CHINARD.*

Three hours. Through the year. Elective for students who have credit for 9, 10 or 11, 12, and for approved students who have credit for 7, 8. *Mon., Tu., Th., at 11.20.*

### 15, 16. *Modern Spanish*

Grammar, conversation, composition, and reading of modern authors. *Professor JOHNSON.*

Three hours. Through the year. Elective for Juniors and Seniors, and for Sophomores not electing more than one other modern language. *Tu., Fri., Sat., at 10.20.*

### [17, 18. *Modern Italian*]

Grammar, composition, and reading of modern authors.

Three hours. Through the year. Elective for Juniors and Seniors, and for Sophomores not electing more than one other modern language. Not offered in 1911-12.

### [19, 20. *Dante in English*]

A study of the whole of the *Divina Commedia* in English, in the light of modern thought and of other world-poems.

Three hours. Through the year. Elective for Juniors, Seniors, and Graduates. Students are advised to elect this course in their Senior year. Not offered in 1911-12.

21, 22. *Spanish Language and Literature*

Selected works of classical and modern authors; composition; conversation. *Professor JOHNSON.*

Three hours. Through the year. Elective for students who have credit for 15, 16. *Wed., Fri., Sat., at 11.20.*

## XXIV. SOCIAL AND POLITICAL SCIENCE ‡

JAMES QUAYLE DEALEY, Ph.D., *Professor of Social and Political Science*

LESTER FRANK WARD, A.M., LL.D., *Professor of Sociology*

JOHN CORLISS DUNNING, LL.B., Ph.D., *Instructor in Social and Political Science*

## SOCIAL SCIENCE

1. *Elementary Social and Political Science*

Affords a general outline of these subjects and serves as an introduction to the more extended and special courses which follow. *Professor DEALEY.*

Three hours. In connection with Economics 1 constitutes a year course required in Sophomore, Junior, or Senior year of candidates for the degree of Bachelor of Arts, and in Sophomore year of candidates for the degree of Bachelor of Science. Elective for others. Beginning with the class entering in 1911, required also of candidates for the degree of Bachelor of Philosophy. The combined courses will be given in two divisions. For the first division Economics will precede Social and Political Science; for the second, the order will be reversed. *1st div., second semester, Tu., Fri., Sat., at 10.20; 2d div., first semester, Mon., Wed., Fri., at 12.20.*

3, 4. *Social Problems and Conditions*

First semester, development of modern social institutions and problems involved; racial questions of western civilization; modern domestic institutions. Second semester, modern social problems, such as charity, crime, intemperance, and immigration. Social legislation. *Professor DEALEY and Dr. DUNNING.*

Three hours. Through the year. Elective for Juniors, Seniors, and Graduates. *Mon., Tu., Th., at 11.20.*

‡ The courses in this department other than 1 are open only to those students who have credit for Social and Political Science 1 and Economics 1.

### 5, 6. *Origin and Development of Society* ‡

First semester, formation and dispersion of primitive groups; origin of races; union and coalescence of groups; the race struggle; institutions growing out of the race struggle; stages of culture. Second semester, domestic relations; kinship groups; marriage and the family; institutions growing out of domestic relations; gentile society; transition to political society; primary institutions. *Professor WARD.*

Three hours. Through the year. Elective for Juniors, Seniors, and Graduates. *Tu., Th., Sat., at 12.20.*

### 7. *Sociology as a Science* ‡.

Its relations to other sciences; its psychologic basis; its fundamental principles and their sources in the less complex sciences. *Professor WARD.*

Three hours. First semester. Elective for Seniors and Graduates. Followed in the second semester by 8. *Wed., Fri., Sat., at 11.20.*

### 8. *Application of Sociological Principles* ‡

The utility of sociology as a means of increasing human achievement. The improvement of society through conscious effort. Scientific legislation. *Professor WARD.*

Three hours. Second semester. Elective for Seniors and Graduates. Preceded by either 5, 6 or 7. *Wed., Fri., Sat., at 11.20.*

### 9, 10. *Sociological Aspects of Education*

First semester, the sociological theory of education. The social importance of intellectual development and of the diffusion of knowledge. Second semester, the sociological curriculum; survey of the several fields of knowledge in the order of nature. *Professor WARD.*

Three hours. Through the year. Elective for Seniors and Graduates. *Tu., Fri., 4.30 to 6.*

### 11, 12. *Sociological Theories*

First semester, ancient and medieval theories in respect to social conditions and development; precursors of sociology. Second semester, sociological theories since the opening of the nineteenth century; a

‡ Course 5, 6 deals with the subject chiefly from the historical standpoint. Course 7 deals mainly with the principles and theory of sociology. Undergraduates should not elect both of these courses in the same year, and 5, 6 should precede 7. Course 8 may properly follow either of these.

review of modern sociological thought in Europe and America and its influence on the life and institutions of society. *Professor DEALEY*. Three hours. Through the year. Offered if applied for by Graduates.

### 13, 14. *Investigation of Special Topics*

Intended to train the student in methods of gathering, handling, and presenting data in the study of social problems. For the year 1911-12 the subject will be Municipal Conditions and Social Welfare, including a study of social statistics. Laboratory methods. *Professor DEALEY*. Three hours. Six hours of attendance. Through the year. Elective for Graduates, and for a limited number of approved Juniors and Seniors. Either semester may be elected independently.

## POLITICAL SCIENCE

### 1. *Elementary Political and Social Science*

See Social Science 1.

### 3, 4. *Government and Politics of the United States*

First semester, national and state governments, their organization, powers, and methods; current political issues. Second semester, municipal government; framework and activities of European and American municipalities. *Professor DEALEY, Dr. DUNNING*.

Three hours. Through the year. Elective for Juniors and Seniors. *Mon., Th., Fri., at 9.20.*

### 5. *Governments and Politics of Foreign States*

The political systems of typical leading states, including some of the states of Latin-America. Current international political situations and problems. *Dr. DUNNING*.

Three hours. First semester. Followed in the second semester by 6. Elective for Juniors, Seniors, and Graduates. *Mon., Wed., Th., at 10.20.*

### 6. *International Relations*

International rules of peace and war. Diplomatic usage. History and methods of arbitration. *Dr. DUNNING*.

Three hours. Second semester. Preceded in the first semester by 5. Elective for Juniors, Seniors, and Graduates. *Mon., Wed., Th., at 10.20.*

### 7. *Jurisprudence*

The development of law and of its fundamental principles. Special



reference to Roman law and to the English common law. *Dr. DUNNING.*  
Three hours. First semester. Followed in the second semester by 8. Elective for Seniors and Graduates. *Tu., Wed., Sat., at 9.20.*

### 8. *Constitutional Law*

Principles and development of American constitutional law. Case system. *Dr. DUNNING.*

Three hours. Second semester. Preceded in the first semester by 7. Elective for Seniors and Graduates. *Tu., Wed., Sat., at 9.20.*

### 9. *Development of Political Theories*

Classical and medieval political theories. Development of modern democratic theories in England, France, and the United States. *Dr. DUNNING.*

Three hours. First semester. Followed in the second semester by 10. Offered if applied for by Graduates.

### 10. *Modern Theory of the State*

The origin and development of the state, its sovereignty, its governmental organization and functions. Theories underlying the organization of political parties. *Dr. DUNNING.*

Three hours. Second semester. Preceded in the first semester by 9. Offered if applied for by Graduates.

### 11, 12. *Current Social and Political Theory and Practice*

A seminary course. Intended to train students in methods of estimating the value and significance of recent publications on social and political topics. Study of current problems arising through changing social conditions. During the year 1911-12, special attention is given to publications in German and French. *Dr. DUNNING.*

One hour. Through the year. Elective for Graduates and approved Seniors. *Mon. at 5.*

### 13, 14. *Investigation of Special Topics*

Intended to train students in methods of gathering and presenting data in the study of political problems. In connection with this course, work in comparative legislation may be taken under the direction of the Legislative Reference Bureau of the State Library. Laboratory methods. *Professor DEALEY.*

Three hours. Six hours of attendance. Through the year. Elective for Graduates, and for a limited number of approved Juniors and Seniors.

## PHYSICAL TRAINING

FREDERICK WILLIAM MARVEL, PH.B., *Professor of Physical Training*

From Thanksgiving to the Spring recess, all first and second year students are required to attend gymnasium exercises three times a week as follows:

FRESHMEN. *1st div., Tu., Fri., Sat., at 10.20; 2d div., Mon., Tu., Th., at 4.20.*

SOPHOMORES. *1st div., Mon., Wed., Th., at 10.20; 2d div., Tu., Th., Fri., at 3.20.*

A voluntary class for Juniors and Seniors will be held on *Mon., Tu., Th., Fri., at 5.10*. Classes in heavy gymnastics, under the direction of a special instructor, are held four afternoons a week. Classes in wrestling, under the direction of a special instructor, are held two afternoons a week. Instruction in swimming, under the direction of a special instructor, is given by appointment.

# TABLE OF ELECTIVE COURSES, 1911-12 †

## FIRST SEMESTER

<i>Art</i>	<i>Biology</i>	<i>Economics</i>
1 So. Jr. Sr. Gr.	37 Gr.	21 Sr. Gr.
3 Jr. Sr. Gr.	39 Gr.	23 Sr. Gr.
5 Jr. Sr.	41 Gr.	<i>Education</i>
7 Gr.	<i>Botany</i>	1 Jr. Sr. Gr.
15 Fr. So. Jr. Sr.	1 Fr. So. Jr. Sr.	3 Sr. Gr.
17 So. Jr. Sr.	3 So. Jr. Sr. Gr.	5 Gr. Sr.
19 Jr. Sr.	7 Gr. Sr. Jr.	7 Gr. Sr.
<i>Astronomy</i>	11 So. Jr. Sr. Gr.	9 Gr. Sr.
1 Jr. Sr.	<i>Chemistry</i>	11 Gr. Sr.
7 Sr.	1 Fr. So. Jr. Sr.	<i>Electrical Engineering</i>
9 Gr. Sr.	3 So. Jr. Sr.	1 Jr. Sr.
<i>Biblical Literature</i>	5 Jr. Sr. Gr.	3 Sr.
1 Jr. Sr. Gr.	7 Jr. Sr. Gr.	7 Sr.
3 Sr. Gr.	13 Gr.	<i>English</i>
5 Gr. Sr.	15 Jr. Sr. Gr.	3 So.
7 Gr.	17 Gr.	5 So. Jr. Sr.
8 Sr. Gr.	19 Gr.	7 So. Jr. Sr.
9 Sr. Gr.	21 Jr. Sr. Gr.	9 Jr. Sr.
11 Jr. Sr. Gr.	23 Jr. Sr. Gr.	11 So. Jr. Sr.
17 So. Jr. Sr. Gr.	25 Gr.	15 Jr. Sr. Gr.
19 So. Jr. Sr. Gr.	27 Sr. Gr.	17 Jr. Sr. Gr.
21 Gr. Sr. Jr.	29 Sr. Gr.	19 Fr. So.
23 Gr.	32 Gr.	23 Jr. Sr.
<i>Biology</i>	<i>Civil Engineering</i>	25 So. Jr. Sr.
1 Fr. So. Jr. Sr.	1 So. Jr. Sr.	27 Jr. Sr.
3 So. Jr. Sr.	7 Jr. Sr.	33 Jr. Sr.
5 Jr. Sr.	9 Jr. Sr.	37 So. Jr. Sr.
7 Jr. Sr.	13 Jr. Sr.	39 So. Jr. Sr.
9 Jr. Sr. Gr.	15 Sr.	43 Gr. Sr.
11 So. Jr. Sr.	17 Sr.	<i>French</i>
13 So. Jr. Sr.	19 Sr.	1 Fr. So. Jr. Sr.
17 Jr. Sr. Gr.	<i>Economics</i>	5 Fr. So. Jr. Sr.
19 Fr. So. Jr. Sr.	1 So. Jr. Sr.	7 Fr. So. Jr. Sr.
31 Gr.	3 Jr. Sr. Gr.	9 So. Jr. Sr.
33 Gr.	5 Jr. Sr. Gr.	11 So. Jr. Sr.
35 Gr.	7 Jr. Sr. Gr.	13 So. Jr. Sr.

† Fr., So., Jr., Sr., Gr., indicate that the courses after which these abbreviations stand are open to Freshmen, Sophomores, Juniors, Seniors, or Graduates, respectively.

*Geology*

1 Fr. So. Jr. Sr.  
 5 Fr. So. Jr. Sr.  
 9 So. Jr. Sr.  
 11 Gr. Sr.

*German*

1 Fr. So. Jr. Sr.  
 3 So. Jr. Sr.  
 5 Fr. So. Jr. Sr.  
 7 Fr. So. Jr. Sr.  
 9 Fr. So. Jr. Sr.  
 21 So. Jr. Sr.  
 25 So. Jr. Sr.  
 33 Gr. Sr.  
 35 Gr. Sr.  
 41 Gr. Sr.

*Greek*

A Fr. So. Jr. Sr.  
 1 Fr. So. Jr. Sr.  
 3 So.  
 5 Jr. Sr.  
 13 So. Jr. Sr.  
 15 Fr. So. Jr. Sr.  
 17 Gr. Sr.

*History*

3 Jr. Sr. Gr.  
 5 Jr. Sr. Gr.  
 7 Jr. Sr. Gr.  
 11 Gr. Sr.  
 13 Jr. Sr. Gr.  
 15 Jr. Sr. Gr.  
 17 Gr. Sr.  
 19 Gr.

*Latin*

1 Fr. So. Jr. Sr.  
 3 So. Jr. Sr.  
 5 Jr. Sr.  
 9 Jr. Sr. Gr.  
 11 So. Jr. Sr.

*Latin*

13 So. Jr. Sr.  
 17 Gr.

*Mathematics*

1 B Fr.  
 3 Fr. So. Jr. Sr.  
 5 Fr. So. Jr. Sr.  
 7 So. Jr. Sr.  
 9 Jr. Sr.  
 15 Fr. So. Jr. Sr.  
 21 Gr. Sr.  
 25 Gr. Sr. Jr.  
 27 Gr. Sr.

*Mechanical Drawing*

3 So. Jr. Sr.  
 5 So. Jr. Sr.  
 7 Fr. So. Jr. Sr.

*Mechanical Engineering*

6 So. Jr. Sr.  
 7 So. Jr. Sr.  
 9 Jr. Sr.  
 11 Sr.  
 15 Jr. Sr.  
 17 Jr. Sr.  
 19 Jr. Sr.  
 21 Sr.

*Mechanics*

1 So. Jr. Sr.  
 3 Jr. Sr.  
 5 Sr. Gr.

*Music*

1 So. Jr. Sr.

*Philosophy*

1 So. Jr. Sr.  
 3 So. Jr. Sr.  
 5 Jr. Sr. Gr.  
 7 Jr. Sr. Gr.  
 9 Jr. Sr. Gr.  
 11 Jr. Sr. Gr.

*Philosophy*

13 Sr. Gr.  
 19 Sr. Gr.  
 23 Sr. Gr.

*Physics*

1 Fr. So. Jr. Sr.  
 3 So. Jr. Sr.  
 5 So. Jr. Sr.  
 7 Sr. Gr.  
 9 Gr. Sr.  
 11 Jr. Sr. Gr.  
 13 Sr. Gr.  
 15 Jr. Sr. Gr.  
 21 Jr. Sr.  
 23 Jr. Sr. Gr.  
 25 Jr. Sr. Gr.

*Political Science*

1 So. Jr. Sr. Gr.  
 3 Jr. Sr.  
 5 Jr. Sr. Gr.  
 7 Sr. Gr.  
 9 Gr.  
 11 Gr. Sr.  
 13 Gr. Sr. Jr.

*Sanskrit*

5 Jr. Sr. Gr.

*Social Science*

1 So. Jr. Sr. Gr.  
 3 Jr. Sr. Gr.  
 5 Jr. Sr. Gr.  
 7 Sr. Gr.  
 9 Sr. Gr.  
 11 Gr.  
 13 Gr. Sr. Jr.

*Spanish*

15 So. Jr. Sr.  
 21 Jr. Sr.

## SECOND SEMESTER

<i>Art</i>	<i>Biology</i>	<i>Economics</i>
2 So. Jr. Sr. Gr.	42 Gr.	6 Jr. Sr. Gr.
4 Jr. Sr. Gr.	<i>Botany</i>	10 Jr. Sr. Gr.
6 Jr. Sr.	2 Fr. So. Jr. Sr.	22 Sr. Gr.
8 Gr.	4 So. Jr. Sr. Gr.	24 Sr. Gr.
16 Fr. So. Jr. Sr.	8 Gr. Sr. Jr.	<i>Education</i>
18 So. Jr. Sr.	10 Fr. So. Jr. Gr.	2 Jr. Sr. Gr.
19 Jr. Sr.	12 So. Jr. Sr. Gr.	4 Sr. Gr.
<i>Astronomy</i>	<i>Chemistry</i>	6 Gr. Sr.
2 Jr. Sr.	2 Fr. So. Jr. Sr.	8 Gr. Sr.
4 Jr. Sr.	4 So. Jr. Sr.	10 Gr. Sr.
8 Sr.	6 Jr. Sr. Gr.	12 Gr. Sr.
10 Gr. Sr.	8 Jr. Sr. Gr.	<i>Electrical Engineering</i>
<i>Biblical Literature</i>	10 Sr. Gr.	2 Jr. Sr.
2 Jr. Sr. Gr.	12 Sr. Gr.	4 Sr.
4 Sr. Gr.	14 Gr.	8 Sr.
6 Gr. Sr.	16 Jr. Sr. Gr.	10 Sr.
7 Gr.	18 Gr.	<i>English</i>
8 Sr. Gr.	20 Jr. Sr. Gr.	4 So.
10 Sr. Gr.	22 Jr. Sr. Gr.	6 So. Jr. Sr.
12 Jr. Sr. Gr.	24 Jr. Sr. Gr.	8 So. Jr. Sr.
18 So. Jr. Sr. Gr.	26 Gr.	10 Jr. Sr.
19 So. Jr. Sr. Gr.	28 Sr. Gr.	12 So. Jr. Sr.
22 Gr. Sr. Jr.	30 Sr. Gr.	16 Jr. Sr. Gr.
23 Gr.	32 Gr.	18 Jr. Sr. Gr.
<i>Biology</i>	<i>Civil Engineering</i>	20 Fr. So.
2 Fr. So. Jr. Sr.	2 So. Jr. Sr.	26 So. Jr. Sr.
4 So. Jr. Sr.	4 So. Jr. Sr.	28 Jr. Sr.
6 Jr. Sr.	6 Jr. Sr.	34 Jr. Sr.
8 Jr. Sr.	8 Jr. Sr.	38 So. Jr. Sr.
10 Jr. Sr. Gr.	10 Jr. Sr.	40 So. Jr. Sr.
12 So. Jr. Sr.	12 So. Jr. Sr.	42 Jr. Sr.
14 So. Jr. Sr.	20 Sr.	44 Gr. Sr.
16 So. Jr. Sr.	22 Sr.	<i>French</i>
18 Jr. Sr. Gr.	24 Sr.	2 Fr. So. Jr. Sr.
20 Fr. So. Jr. Sr.	28 Jr. Sr.	6 Fr. So. Jr. Sr.
22 Jr. Sr.	30 Sr.	8 Fr. So. Jr. Sr.
32 Gr.	32 Sr.	10 So. Jr. Sr.
34 Gr.	34 Sr.	12 So. Jr. Sr.
36 Gr.	<i>Economics</i>	14 So. Jr. Sr.
38 Gr.	1 So. Jr. Sr.	<i>Geology</i>
40 Gr.	4 Jr. Sr. Gr.	2 Fr. So. Jr. Sr.

*Geology*

6 Fr. So. Jr. Sr.  
8 Fr. So. Jr. Sr.  
10 So. Jr. Sr.  
12 Gr. Sr.

*German*

2 Fr. So. Jr. Sr.  
3 So. Jr. Sr.  
6 Fr. So. Jr. Sr.  
8 Fr. So. Jr. Sr.  
10 Fr. So. Jr. Sr.  
22 So. Jr. Sr.  
26 So. Jr. Sr.  
34 Gr. Sr.  
36 Gr. Sr.  
42 Gr. Sr.

*Greek*

B Fr. So. Jr. Sr.  
2 Fr. So. Jr. Sr.  
4 So.  
6 Jr. Sr.  
12 So. Jr. Sr.  
14 So. Jr. Sr.  
18 Gr. Sr.

*History*

4 Jr. Sr. Gr.  
6 Jr. Sr. Gr.  
8 Jr. Sr. Gr.  
12 Gr. Sr.  
14 Jr. Sr. Gr.  
16 Jr. Sr. Gr.  
18 Gr. Sr.  
19 Gr.

*Latin*

2 Fr. So. Jr. Sr.  
4 So. Jr. Sr.  
6 Jr. Sr.  
10 Jr. Sr. Gr.  
12 So. Jr. Sr.

*Latin*

14 So. Jr. Sr.  
16 Fr. So. Jr. Sr.  
18 Gr.

*Mathematics*

2 B Fr.  
4 Fr. So. Jr. Sr.  
6 Fr. So. Jr. Sr.  
8 So. Jr. Sr.  
10 Jr. Sr.  
14 Fr. So. Jr. Sr.  
16 Fr. So. Jr. Sr.  
22 Gr. Sr.  
26 Gr. Sr. Jr.  
28 Gr. Sr.

*Mechanical Drawing*

3 So. Jr. Sr.  
8 Fr. So. Jr. Sr.

*Mechanical Engineering*

6 So. Jr. Sr.  
7 So. Jr. Sr.  
8 So. Jr. Sr.  
10 Jr. Sr.  
12 Jr. Sr.  
16 Jr. Sr.  
18 Jr. Sr.  
20 Jr. Sr.

*Mechanics*

2 So. Jr. Sr.  
4 Jr. Sr.  
6 Sr. Gr.

*Music*

2 So. Jr. Sr.

*Philology*

4 Gr. Sr.

*Philosophy*

2 So. Jr. Sr.  
4 So. Jr. Sr.  
6 Jr. Sr. Gr.

*Philosophy*

8 Jr. Sr. Gr.  
12 Jr. Sr. Gr.  
14 Sr. Gr.  
20 Sr. Gr.  
24 Sr. Gr.

*Physics*

2 Fr. So. Jr. Sr.  
4 So. Jr. Sr.  
6 So. Jr. Sr.  
8 Sr. Gr.  
10 Gr. Sr.  
12 Jr. Sr. Gr.  
14 Sr. Gr.  
16 Jr. Sr. Gr.  
22 Jr. Sr.  
24 Jr. Sr. Gr.  
26 Jr. Sr. Gr.

*Political Science*

1 So. Jr. Sr.  
4 Jr. Sr.  
6 Jr. Sr. Gr.  
8 Sr. Gr.  
10 Gr.  
12 Gr. Sr.  
14 Gr. Sr. Jr.

*Sanskrit*

6 Jr. Sr. Gr.

*Social Science*

1 So. Jr. Sr. Gr.  
4 Jr. Sr. Gr.  
6 Jr. Sr. Gr.  
8 Sr. Gr.  
10 Sr. Gr.  
12 Gr.  
14 Gr. Jr. Sr.

*Spanish*

16 So. Jr. Sr.  
22 Jr. Sr.

# LIBRARIES, LABORATORIES, AND MUSEUMS

## LIBRARIES

THE libraries of the University contain two hundred thousand volumes. They comprise the UNIVERSITY LIBRARY, which occupies the John Hay Library Building; the JOHN CARTER BROWN LIBRARY, also with its own building; and the DEPARTMENT LIBRARIES, in the various seminary rooms and laboratories.

### THE UNIVERSITY LIBRARY

HARRY LYMAN KOOPMAN, A.M., LITT.D., *Librarian*

THE MAIN LIBRARY is constantly increased with reference to the different courses of study, while at the same time there is kept in view the development of a library of general culture. It includes four special libraries. The first is the Harris Collection of American Poetry, founded by Albert G. Greene, of the class of 1820, extended by C. Fiske Harris, and bequeathed to the University by the Hon. Henry B. Anthony, of the class of 1833, which numbers over eleven thousand volumes, and is perhaps the largest collection in the world devoted to the subject; a fund, given by Samuel C. Eastman, of the class of 1837, in memory of the founder of the collection, provides for its regular increase. The second is the Rider Collection of Rhode Island History, formed by Sidney S. Rider and presented to the University by Marsden J. Perry, a collection remarkable for the extent and rarity of its manuscript and printed material bearing on the history of the state. The third is the Wheaton Collection of International Law, given by William V. Kellen, of the class of 1872, in honor of Henry Wheaton, of the class of 1802. This collection, which already numbers fifteen hundred volumes, is being rapidly increased. The fourth is the George Earl Church Collection, the bequest of Colonel Church, consisting of thirty-five hundred volumes, many of them of great rarity, on the geography, history, and development of South America.

The reading room contains the most important reference books, the books reserved by the departments for class use, and the latest numbers of the standard periodicals, American and foreign. On the floor of the stack which opens off the reading room has been placed a special collection known as the STUDENTS' LIBRARY, which consists of some seventeen thousand volumes selected for the use of undergraduates. To this floor all students have free access. The other floors of the stack are open regularly to graduate students, and to undergraduates by special permission. On the top floor of the building is a large

exhibition room, open to the public, in which are displayed books and paintings and other objects of artistic, bibliographic, or historic interest.

The library funds amount to eighty-six thousand dollars. Of this sum ten thousand dollars constitutes the Gammell Fund for the purchase of books relating to the history of the United States; ten thousand dollars, the Olney Fund for the purchase of plants and botanical books; ten thousand dollars, the Diman Memorial Fund for the purchase of books on medieval and modern history; and ten thousand dollars, the Banigan Fund for the purchase of books on medieval and church history. The remainder includes several smaller special funds and the Library Fund proper.

The following persons are entitled to the use of the library without expense,—the members of the Corporation and Faculty; other college officers; graduates residing in the State of Rhode Island; donors to the funds of the University to the amount of five hundred dollars, residing in the state of Rhode Island; graduate and undergraduate students; and any other persons to whom the Corporation or the Library Committee may from time to time grant the privilege.

The library is open during term time from 9 a.m. to 11 p.m. on week days, and from 2 to 11 p.m. on Sundays; during vacations on week days, from 9 a.m. to 5 p.m.

### THE JOHN CARTER BROWN LIBRARY

GEORGE PARKER WINSHIP, A.M., *Librarian*

THE JOHN CARTER BROWN LIBRARY, with the building erected for its use, was given to the University by the trustees under the provisions of the will of John Nicholas Brown, of the class of 1885. This collection, well known for many years as the most valuable private library of Americana in existence, was begun by John Carter Brown, of the class of 1816, and after his death was greatly enlarged by his widow and by his sons, John Nicholas and Harold Brown. It now includes more than twenty thousand volumes relating to the history of North and South America during the colonial period. The larger part of the books, many of which are of great rarity and value, were printed before the year 1800, and contain the earliest published accounts of events connected with the discovery, exploration, and colonization of the Western Hemisphere. The books may be consulted by properly qualified students or investigators, upon application to the Librarian. In the main hall of the building are a number of cases in which are exhibited rare books, engravings, and manuscripts belonging to the collection. The library is open on week days, from 9 a.m. to 5 p.m.

### DEPARTMENT LIBRARIES

THE GERMANIC DEPARTMENT LIBRARY comprises over seventy-five hundred carefully selected volumes. The nucleus was purchased in Germany by the late Professor Alonzo Williams in the name of the principal donor, the Hon. Hezekiah



**Conant.** It has since been augmented through the yearly appropriation granted by the University, and by the generosity of Mr. Samuel Morris Conant of Pawtucket and other friends of the department, including German citizens of Providence. The library contains editions of all the important writers of German literature; a large collection of works on Germanic philology; the leading German literary and philological periodicals; many works upon German history, the history of German literature, and German law, art, paleography, and geography. It is especially rich in works of the Middle High German period, in Goethe and Schiller literature, and in literature of the nineteenth century. It possesses several hundred photographs of masterpieces of German painting and architecture, and characteristic views of German cities and landscape. There are many lantern-slides, engravings, and bronzes used to illustrate the subjects taught. The rooms, Sayles 6 and 7, are open from 9.20 a.m. to 12.30 p.m., and from 2 to 6 p.m.

**THE ENGLISH DEPARTMENT LIBRARY** comprises about three thousand volumes, of which more than twenty-seven hundred were from the private library of the late Hammond Lamont, Professor of Rhetoric in Brown University from 1895 to 1900. These were presented to the University in his memory, by the classes of 1899 and 1900. The collection is especially rich in works on the drama and in prose fiction of the eighteenth century. The library is contained in the rooms of the department, in the John Hay Library Building.

**THE LIBRARIES OF THE DEPARTMENTS OF GREEK AND LATIN** constitute the Albert Harkness Classical Seminary, named in honor of its founder, the late Professor Albert Harkness. It consists of fifteen hundred volumes, purchased with funds contributed by friends of the University interested in classical studies, and contains the most important collections of Greek and Roman authors, besides commentaries, reference books, and similar aids. The room, Sayles 8, is open from 9.20 a.m. to 10 p.m.

**THE ROMANCE DEPARTMENT LIBRARY** consists of a collection of a thousand volumes for the use of advanced students in the Romance languages. The room, Sayles 4, is open Mondays, Tuesdays, and Wednesdays, from 4 to 6.30 p.m., and from 7 to 9 p.m.; on Saturdays from 11.30 a.m. to 1 p.m.

**THE BIBLICAL DEPARTMENT LIBRARY** consists of a reference collection of one thousand volumes, including a valuable collection of Semitic books presented by Mr. Jacob Shartenberg of Pawtucket. Through the gift of Mr. William Gammell important books for the use of advanced students have recently been added. A number of Semitic, Biblical, and general religious journals are kept on file. The room, Sayles 3, is open from 9.20 a.m. to 12 m., from 2 to 5 p.m., and from 7 to 9 p.m., except Wednesday and Saturday afternoons and Friday evenings.

THE BIOLOGICAL DEPARTMENT LIBRARY is a collection of about two thousand two hundred volumes and fifteen hundred pamphlets, to which additions are constantly made. More than fifty current periodicals bearing upon the work of the department are regularly received. The rooms, in Rhode Island Hall, are open from 9.20 a.m. to 4 p.m.

THE EDUCATIONAL DEPARTMENT LIBRARY contains over twelve hundred volumes, chiefly text-books of recent publication. It occupies the seminary room of the department, in the Administration Building, and is open to all students interested in education, and to teachers and friends of education in the city and state.

THE LIBRARY OF THE DEPARTMENT OF ECONOMICS comprises about ten thousand volumes, to which additions are constantly made, and receives regularly about one hundred and twenty-five periodicals and papers bearing upon the work of the department. The rooms, in Sayles Hall, are open from 8 a.m. to 10 p.m.

THE BOTANICAL DEPARTMENT LIBRARY consists of about eight hundred bound volumes, several thousand pamphlets, and the more important current periodicals. These books have been selected from the large number in the main library as the ones most likely to be in demand by students working in the laboratory, and by visiting botanists working in the Herbarium. When not in use at the department, or on reserve at the department or the main library, any of these books may be borrowed in the usual manner by applying at the University Library. The rooms of the department are in Maxcy Hall.

THE LIBRARY OF THE DEPARTMENT OF PHYSICS is provided with files of the *Fortschritte der Physik*, *Annalen der Physik*, *Philosophical Magazine*, *Journal de Physique*, *Radium*, *Beiblätter der Physik*, *Physical Review*, *Science Abstracts*, *Physikalische Zeitschrift*, *Nature*, and other magazines, together with a rich collection of the standard works and monographs in all departments of Physics and Electrical Engineering, and also the collected works of great authors, physical tables, etc. The room, in Wilson Hall, is open daily.

THE MATHEMATICAL DEPARTMENT LIBRARY comprises about five hundred bound volumes of mathematical journals and seven hundred other books. Special effort has been made to have the best books in all branches of Mathematics. The library has complete sets of the following journals: *Acta Mathematica*, *American Journal of Mathematics*, *Annals of Mathematics*, *Bulletin of the American Mathematical Society*, *Bulletin des Sciences Mathématiques*, *Journal de Mathématiques pures et appliquées* (Liouville), *Journal für die reine und angewandte Mathematik* (Crelle), *Mathematical Questions and Solutions from the Educational Times*, *Mathematische Annalen*, *Transactions of the American Mathematical Society*. It is desired that the library shall be used freely by the students; applications should be made to the librarian, Professor H. P. Manning. The library room is in Wilson Hall.

THE LIBRARIES OF THE DEPARTMENTS OF CIVIL ENGINEERING, MECHANICAL ENGINEERING, MECHANICS AND MECHANICAL DRAWING are grouped together on the third floor of the Engineering Building. They form an excellent working library of about two thousand three hundred volumes, including complete sets of many periodicals. All the important engineering periodicals are regularly received.

THE GEOLOGICAL DEPARTMENT LIBRARY consists of more than twenty-five hundred volumes of general reference works, government and state reports, charts and maps, and periodicals dealing with various lines of geographical and geological study. The library, Room L, Sayles Hall, is open from 8 a.m. to 10 p.m.

OTHER DEPARTMENT LIBRARIES. There are several other special collections of books for seminary and advanced laboratory work. The most important of these belong to the departments of Astronomy, Chemistry, History, Philosophy, and Social and Political Science.

THE WOMEN'S COLLEGE LIBRARY AND READING ROOM occupy two rooms in Pembroke Hall. The library comprises over twenty-seven hundred volumes of standard literature, chosen with special regard to the courses offered, thus forming for students of the Women's College a convenient and valuable adjunct to the University Library. An experienced librarian is in charge.

#### OTHER PROVIDENCE LIBRARIES

There are also at the service of the students of the University the seven collections of books named below. These comprise, with the University Library, half a million volumes, exclusive of pamphlets and manuscripts.

THE PROVIDENCE PUBLIC LIBRARY offers to all students of Brown University, upon the same conditions as to other residents of the city, the use of its carefully chosen collection, which comprises more than one hundred and fifty-five thousand volumes. Among its special features may be mentioned the Harris Collection on Slavery and the Civil War; the St. Bride Collection of Books on Printing; the Educational Study-room; the "Standard Library" of best literature; and the Reference Department. About eight hundred periodicals, serials, and annuals are currently received. Within a few years a valuable Foreign Language Department has been established, the books in this field comprising about twelve thousand volumes, and representing more than a dozen of the modern languages and literatures. The library staff is glad to be consulted with respect to books relating to any of the departments of University study, and to prepare lists of references in connection with any of the special topics under consideration. The library is situated at the corner of Washington and Greene Streets. Its principal rooms are open regularly from 9 a.m. to 9 p.m.; on Sundays and Christmas, from 2 to 9 p.m.

THE LIBRARY OF THE PROVIDENCE ATHENAEUM is a collection of general literature numbering seventy-six thousand volumes. The reading room receives over two hundred papers and magazines, including New York, Boston, and Providence daily papers, and American, English, German, French, and Italian weeklies, magazines, and reviews. In bound sets of periodicals and in books on art this library is especially rich. Professors or teachers may become annual subscribers on the payment of four dollars in advance, and any student of Brown University may become a subscriber for three months on the payment of one dollar. All such subscribers have the right to take out books and use the rooms of the library in the same manner as shareholders, except that the rights of subscribers who pay less than at the regular rate of twelve dollars per annum are personal only and do not extend to the families of such subscribers. The Athenaeum is open on week days, from 9 a.m. to 9 p.m.

THE LIBRARY OF THE RHODE ISLAND HISTORICAL SOCIETY is situated on Waterman Street, next to the old University Library Building. The library of the society comprises thirty thousand bound volumes and fifty thousand unbound volumes and pamphlets. Through the courtesy of the society the collection is made accessible, free of charge, to members of the University. It offers special facilities for thorough research not only in all subjects relating to the history of Rhode Island, but also in genealogy, biography, general American history, early American travel, and the drama. The library is open on week days, from 9 a.m. to 4 p.m.

THE ANNMARY BROWN MEMORIAL, situated on Brown Street south of the University grounds, was founded by General Rush C. Hawkins, of New York, in memory of his wife, Annmary Brown, of Providence, a granddaughter of Nicholas Brown, after whom the University was named. The building contains a collection—one of the most complete in the world—of books from the first European presses. It contains also a notable collection of paintings by old masters and modern painters. The collection of books was made for the special purpose of showing the progress of printing with movable metal type through the first half century of its existence, from about 1450 to 1500. It includes one hundred and thirty books from the possible two hundred and thirty-eight first presses set up in the cities, villages, and monasteries in Europe before the year 1501, and is fairly representative of countries. Among the books are many rare and interesting volumes. Incidentally there came into the collection many notable volumes adorned with woodcuts which show the earliest use of the woodcutter's art for book illustration.

THE LIBRARY OF THE RHODE ISLAND MEDICAL SOCIETY is in the Providence Public Library Building, on Washington Street. It comprises twenty-two thousand volumes and numerous pamphlets upon medical science, including biology, physiology, physiological psychology, hygiene, and other subjects the study of which is pursued in the University. About one hundred and sixty medi-

cal periodicals are currently received. Arrangements are easily made whereby any student can without cost enjoy the privileges here offered. This collection is open daily from 9.30 a.m. to 5.30 p.m.

THE STATE LAW LIBRARY is a collection of forty thousand volumes. It is accessible to all students, and for certain lines of University study is invaluable. University students are requested to introduce themselves at the desk. The rooms of the library are in the Providence County Court House, at the corner of Benefit and College Streets, and are open on week days, from 9 a.m. to 5 p.m.; except on Saturdays, when they close at 3 p.m.

THE STATE LIBRARY, located in the State House, contains a large collection of official documents of the United States and of the several states, a complete collection of the United States Patent Office Specifications, and general works pertaining to history and political science. The Legislative Reference Bureau conducted by the State Library directs the work of students who are investigating topics in comparative legislation. The library is open to the public on week days, from 9 a.m. to 5 p.m.; except on Saturdays, when it closes at 12 m.

## LABORATORIES

THE LADD ASTRONOMICAL OBSERVATORY is equipped with a Saegmüller-Brauer equatorial of twelve inches aperture, which is supplied with a filar micrometer, a spectroscope, a photographic plate carrier, and other attachments; four transit instruments, two of which can be used as zenith telescopes; a chronograph; three astronomical clocks; several sextants and chronometers; recording meteorological apparatus; and various minor instruments. The equipment is available for illustrating the general courses in astronomy and for practical use in the applied courses.

The Observatory furnishes constant time-signals to the Fire Department of the City of Providence, and to the Rhode Island Electric Protective Company, which distributes them to its patrons. Routine observations for determining clock errors, and for pressure, temperature, humidity, and precipitation, are made throughout the year. Special observations are also made as opportunity offers.

THE PHYSICAL LABORATORY is in Wilson Hall, which was specially designed and constructed for the Department of Physics. Twelve laboratory rooms are available for experimental study. Brick piers support the instruments requiring great steadiness, and the magnetic rooms are as free as possible from the influence of iron and from other disturbances. Several rooms on the ground floor are devoted to electrical engineering. The Laboratory is supplied with apparatus both experimental and demonstrative, and frequent additions are made. The department has a large collection of historical and other photo-

graphs, lantern-slides, and cage models illustrating the propositions in pure and applied physics.

THE CHEMICAL LABORATORIES are in Rogers Hall, which was erected expressly for the Department of Chemistry. The inorganic laboratory is supplied with tables and lockers furnishing accommodations for about two hundred and fifty students working by detachments. The organic laboratory is fitted with tables for about fifty students. Each table has arrangements for gas, high-pressure water-supply, etc.

THE GEOLOGICAL LABORATORIES are in the basement of Sayles Hall. They are equipped with the requisite apparatus and with a detailed series of illustrative specimens for work in general geology, geography, and mineralogy. The region in which the University is situated offers in a small compass both simple and complex problems in field research in structural, paleontological, and stratigraphic geology.

THE BIOLOGICAL LABORATORIES are in Rhode Island Hall. They include laboratories for physiology, bacteriology and histology, neurology and embryology, and a large laboratory for elementary anatomy and comparative anatomy. The collection of zoölogical material and the anatomical and histological preparations of the Museum, the anatomical collection of the Rhode Island Medical Society, and material frequently contributed by the United States Fish Commission from the deep-sea dredging excursions, are valuable aids to the work of the department. Abundant living material is readily available, since the laboratory is situated near the salt water and within a few miles of a floating laboratory on Narragansett Bay.

THE BOTANICAL LABORATORIES are in the basement of Maxcy Hall. The larger laboratory is used for the elementary courses, and the smaller for advanced work. They are equipped with the necessary simple and compound microscopes, paraffin baths, microtomes, freezing apparatus, incubator, sterilizer, etc., and a considerable amount of plant material preserved in liquids, as well as dried. The Herbarium, in an adjoining room, is accessible to advanced students in forestry and medicinal and systematic botany.

THE PSYCHOLOGICAL LABORATORY occupies rooms in Wilson Hall. It possesses apparatus for the study of sensations, the determination of discriminative sensibility, the measurement of the duration of mental processes, the detection of physiological accompaniments of changes in consciousness, the study of temperament, and research in other fields. This equipment is adapted for the illustration and demonstration of the main results of experimental work in psychology, and for carrying on original research.

THE MECHANICAL ENGINEERING LABORATORIES and drafting rooms are situated in the Engineering Building. The laboratories are equipped with apparatus for

the work of the courses in strength of materials, steam, gas, and hydraulic engineering, and metallography. They contain a 400,000-pound and a 50,000-pound Riehle testing machine; a machine for testing full-sized timber and steel beams; a 50,000-inch-pound Olsen torsion testing machine; a machine for testing by repeated stresses; a Riehle cement testing machine; a cross-compound condensing Corliss engine; various smaller engines, gas and gasoline engines, steam pumps, air compressors, injectors, and the necessary apparatus for testing them; a rotary fire pump, Venturi meters, weirs, and measuring tanks; apparatus for investigating the nature and structure of alloys; a photographic dark room; and the usual small apparatus necessary to the work of such laboratories.

The Mechanical Engineering Shops, situated in Rogers Hall, are equipped with hand and machine tools for purposes of instruction in wood-working and metal-working.

THE MECHANICAL DRAWING ROOMS, accommodating two hundred and fifty students, are on the top floor of the Engineering Building. A collection of about two hundred and twenty-five models in wood and metal is extensively used in the courses. There is a dark room, with apparatus for preparing blue-prints.

THE CIVIL ENGINEERING DRAFTING ROOMS, instrument room, and offices are located on the second floor of the Engineering Building. The drafting rooms have desks for about one hundred students. The instrument room contains a complete equipment of apparatus necessary for the field work in surveying and railroad engineering. For the work in structural engineering the department has a collection of over four hundred photographs, five hundred large blue-prints of bridges, buildings, roof trusses, etc., and a complete set of steel structural shapes and iron beam-hangers. The department has also a collection of the various rocks used as road material, a Bausch and Lomb petrographic microscope, a set of the rail sections of the American Society of Civil Engineers, and models of railway appliances and harbor improvements.

## MUSEUMS

THE MUSEUMS OF ZOÖLOGY AND ANTHROPOLOGY are in Rhode Island Hall. They are not mere exhibition rooms, but places for work. The zoölogical and anatomical collections of the University form the Jenks Zoölogical Museum. The Museum of Anthropology contains a collection of articles of dress and implements from foreign countries, and a valuable collection of stone implements of aboriginal American races, including those of Rhode Island. The museums are open to the public daily.

THE HERBARIUM is in the basement of Maxcy Hall. The general collection contains upwards of seventy-five thousand specimens from all parts of the world,

but mainly from America. The cryptogams occupy ten cases and the seed-plants thirty. All of these are mounted and systematically arranged according to Engler and Prantl's *Natürliche Pflanzenfamilien*. There are also several cases of unmounted specimens and duplicates. The genus *Carex* is particularly well represented, as it was the object of much special study by Colonel S. T. Olney, the founder of the Herbarium.

THE MUSEUM OF FINE ARTS occupies the first floor of Manning Hall. It contains plaster casts of unusual excellence, chiefly from works of classical sculpture, which are of great value in illustrating ancient history, biography, and art. It contains also the George W. Harris bequest of pictures by old masters of the Italian and North European schools, and of works in marble, china, glass, bronze, and silver.

The University possesses a large collection of valuable portraits, which are hung in Sayles Memorial Hall. It now includes portraits of the University's principal benefactors, of many of its former officers, and of other distinguished persons, Americans and foreigners. The history of Rhode Island is especially well represented.

A series of fourteen oil paintings illustrating early American history, by Frank O. Small, presented to the Department of History by Samuel M. Conant, is hung in the Faculty Room in the Administration Building.

All the collections are open to the public.



## EXTENSION COURSES

THE University offers during each year two series of extension courses, given at the University and open to all who desire to enter. Each course consists of ten lectures or other exercises, and, while not identical with the corresponding course offered to regular students, is equivalent in the general character and amount of the work required. Persons entering these courses may at their option attend merely as listeners, or may do the prescribed work and take the examination given at the end of the course.

On the completion of each course, certificates are issued to those who have done the work assigned and passed the examination. Each extension course of ten lectures or other exercises is regarded by the University as the equivalent of one-third of a regular three-hour course for one semester, and is accepted by the University in fulfillment of the requirements for the degree of A.B., Ph.B., and A.M., subject to such regulations respecting entrance requirements and prescribed courses as govern regularly enrolled candidates for the respective degrees. Regularly enrolled undergraduates, however, are not given credit for extension courses. For the degree of A.M., credit for extension courses may not exceed in amount two-fifths of the requirement for the degree, and the candidate must be registered with the Dean of the Graduate Department. Those who wish a certificate or university credit should announce their intention at the time of registration; all such announcements must be made not later than the third lecture of the course.

Applications for admission to extension courses should be sent to Professor Walter Ballou Jacobs, Secretary of the Committee on Extension Courses, Administration Building, Brown University. The application should give the full name and the address of the applicant, the course or courses in which registration is desired, and, if the applicant is a teacher, the present educational position. On receipt of the fee, a card of admission is issued which must be shown at the first lecture in each course. Classes are not formed in any course for which fewer than twenty-five apply. The fee for each course is three dollars and a half, payable in advance. Students desiring a certificate or University credit pay an additional fee of one dollar and a half; this fee is due on registration and must be paid not later than the third lecture of the course. Checks should be made payable to Brown University. They should be sent with the application if possible; if not, payment may be made at the Registrar's office, Administration Building.

The courses offered during the first half of the year 1911-12 are:

*American History. Political Leaders of the Old Régime. Professor MACDONALD.*  
*Bibliography. Books: their Making and their Mastery. Professor KOOPMAN.*  
*Biology. Heredity. Professor WALTER.*  
*English. The Modern English Drama. Professor CROSBY.*

*French. French Conversation. Professor CHINARD.*

*German. German Fiction of the Nineteenth Century. Professor VON KLENZE.*

*Home Economics. Foods and Food Values. HELEN S. THOMPSON, Professor in  
Rhode Island State College.*

*Mechanics. Practical Mechanics. Professor RANDALL.*

*Social Science. Some Social Problems. Professor DEALEY.*

## ARRANGEMENTS WITH OTHER INSTITUTIONS



### THE RHODE ISLAND SCHOOL OF DESIGN

**T**HE Rhode Island School of Design is an institution of large and increasing importance for the education of artisans and artists in the principles and processes of art, and for the general advancement of education in art by the exhibition of works of art and art studies, and by lectures. Its school buildings and museum are near the University grounds, and its collections are open daily to the public. Through its exhibitions there is opened to students an important means of culture.

The Corporation and Faculty of Brown University have agreed with the authorities of the Rhode Island School of Design upon a plan of coöperation in accordance with which certain courses at this School are open to students of the University and are counted towards a University degree. A description of these courses and a statement of the conditions under which they may be elected will be found in the list of studies given under the Department of Art, on pages 88, 89. Students from the Rhode Island School of Design are admitted to any classes in Brown University for which they are found to be prepared, and the University gives certain special courses for the benefit of classes from the School of Design.

### THE AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS

In 1902 a number of the friends of the University, in recognition of the sixtieth anniversary of the graduation of the late Professor Harkness, one of the founders of the American School of Classical Studies at Athens, united in contributing to the School the sum of \$5555, to establish a fund to be known as "The Albert Harkness Fund for the Benefit of Brown University." By the establishment of this fund, the privilege of free tuition in the School is secured for all adequately prepared graduates of the University. Any who desire detailed information regarding the School may obtain it by applying to Professor Poland, a former Director and now a member of the Managing Committee, Professor Manatt, also a member of the Managing Committee, or Professor Allinson, who was Professor of the Greek Language and Literature at the School in 1910-11.

### THE NEWTON THEOLOGICAL INSTITUTION

The Newton Theological Institution has entered into an agreement with Brown University whereby certain work done in the University, for which a mark of C has been awarded, or upon which the student passes an exami-

nation satisfactory to the Faculty of the Newton Theological Institution, will be credited toward graduation in the Theological course as follows: Biblical Literature and History 1, 2, 3, 4 (132 hours); 11, 12, 13, 14 (108 hours); 15, 16, 17, 18 (112 hours); English 7 (33 hours),—in all, 385 hours. The total number of prescribed hours in the Theological course at the Newton Theological Institution is 1485.

### THE SCHOOL COMMITTEE OF THE CITY OF PROVIDENCE

The School Committee of the City of Providence, by special agreement, appoints a number of students as teachers in the Providence High Schools. Appointments are made from members of the Senior class who have pursued undergraduate courses in Education. These student-teachers are of two types. Those of the first type—of whom there are at least four, two of each sex—are occupied in the schools each day for somewhat more than half the usual school session. They receive a salary of four hundred dollars a year from the city. Those of the second type are allowed to teach and observe about five hours a week. They have considerably more freedom in the choice of subjects and of hours than those of the first type; they receive no remuneration from the city. An unusual opportunity is thus afforded students to gain at the same time a knowledge of the theory of education and experience in the art of teaching. In making appointments to places as teachers of the lowest grade in the Providence High Schools, preference is given to those who have successfully completed this course of training as student-teachers. In this respect student-teachers of the second type have the same status before the committee that makes appointments as those of the first type. The practice-teaching in the Providence High Schools is done under the following supervising teachers: Charles E. Dennis, Ph.D., Latin; Charles E. Tilley, A.M., Physics and Chemistry; Harriet P. Fuller, A.M., Latin; M. Catherine Mahy, A.M., English; J. Madison Gathany, A.M., History and Civics; Agnes F. Williams, A.M., French; Howard D. Day, A.M., Physics and Chemistry; Russell C. Lowell, A.M., Mathematics; Clarence H. Manchester, A.M., English; Edith H. Williston, A.M., German.

In a similar way a number of students are appointed to places in the Providence Grammar Schools. They receive a salary of three hundred dollars a year from the city. A limited number of Seniors and Graduates who are pursuing courses in Education are allowed to observe and teach in the Grammar Schools of the city in a way similar to that provided for student-teachers of the second type in the High Schools. The practice-teaching in the Providence Grammar Schools is done under the following supervising teachers: Nathan G. Kingsley, Frances H. Fowler, Victor Frazee, and the Grammar Critics of the Providence Public Schools.

# PROVISIONS FOR THE PERSONAL WELFARE OF THE STUDENTS

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## PHYSICAL TRAINING

FOR the physical training of the students excellent opportunities are offered by the Lyman Gymnasium. It is thoroughly equipped with baths, dressing rooms, bowling alleys, and all kinds of apparatus usually found in modern gymnasiums. Connected with the gymnasium is the Colgate Hoyt Swimming Pool, seventy-five feet in length by twenty-five feet in width, with a capacity of seventy-five thousand gallons. All the gymnasium work is under the supervision of the Professor of Physical Training, who makes a thorough examination and measurement of each student on entrance, and at other times by request. Special cases are referred to Dr. G. A. Matteson, the University Physician. Such exercises are prescribed as may be necessary to give health, strength, and symmetrical development. No student is allowed to attempt any feat which is likely to result in injury. From the close of the Thanksgiving recess to the beginning of the spring recess, all first and second year students are required to attend gymnasium exercises three times a week. For other members of the University voluntary classes are provided. The instructor gives five-minute talks on personal hygiene and exercise. The class work consists of setting-up exercises, developing exercises, calisthenics, the use of clubs, dumb-bells, wands, and single sticks, and general athletics. Instruction is also given in swimming, a special effort being made to teach all students to swim. In all the work, the aim is to develop health, strength, and vitality.

All branches of athletics are under the management of the Brown University Athletic Association, and are controlled by a board of undergraduates. The Faculty Committee on Student Organizations has general oversight of the deportment and scholarship of the members of the various teams. Lincoln Field adjoins the gymnasium, and is a convenient place of exercise for the class teams and the students in general. Andrews Field, which is a mile and a half from the University, offers the usual opportunities for all the University teams. The Marston Field House, the gift of Mr. Edgar L. Marston, is fitted with dressing rooms, lockers, baths, and other accommodations.

## MEDICAL CARE

Any student suffering from illness is expected at once to visit or summon the University Physician, Dr. George A. Matteson. [276 Benefit Street. Office hours, 2 to 4 p.m.; 7 to 8 p.m.] When called to see students, the duty of the University Physician is to make one call for diagnosis and prescription at the expense

of the University. For continued attendance, students make their own arrangements with Dr. Matteson or some other physician.

The University owns two free beds in the Rhode Island Hospital, to the occupancy of which the President of the University has the right of appointment. The first of these, THE CHARLES SMITH BRADLEY FREE BED, was established in 1872 by the payment to the hospital of four thousand dollars by the late Judge Bradley, a member of the Board of Fellows, thereby endowing a free bed "under the control of the President of Brown University for the time being, for the benefit of any officer or student of that institution who may have occasion for it." The second, THE GEORGE IDE CHACE FREE BED, was established by the payment to the hospital of four thousand dollars by the late Professor George Ide Chace; this foundation gives to the President of the University "the right to nominate and send to said hospital a patient, being a proper subject for treatment in said hospital according to the rules of the institution, to occupy a bed in said hospital, and to receive the usual care, and medical, surgical, and other attendance, and medicines and board, free of charge."

### RELIGIOUS SERVICES

A chapel service is held in Sayles Hall every week day at 9 a.m. The President usually conducts the exercises. Attendance is required of undergraduates.

During the winter a series of vesper services is held in Sayles Hall on Wednesday afternoons at five o'clock, open both to students and to the public.

In 1911 the preachers at the vesper services were as follows:

REV. CHARLES STELZLE, *New York City.*

REV. CHARLES E. WOODCOCK, *Louisville, Ky.*

REV. H. ROSWELL BATES, *New York City.*

REV. EDWARD JUDSON, *New York City.*

REV. GEORGE H. FERRIS, *Philadelphia, Pa.*

REV. HARRY E. FOSDICK, *Montclair, N. J.*

REV. CLARENCE A. BARBOUR, *Rochester, N. Y.*

### BROWN UNIVERSITY CHRISTIAN ASSOCIATION

The purpose of this Association is to unite all men who cherish Christian ideals in the service of their fellow men. To this end it welcomes to membership all men who are connected with the University. It conducts weekly meetings for the discussion of topics of religious, philanthropic, or educational interest, or for devotional purposes. In the winter it arranges a series of conferences with the preachers at the vesper services. The Association coöperates with several philanthropic institutions and churches in Providence. Groups of students meet weekly for the study of subjects relating to religion and social welfare. An information bureau is open to all the men of the entering class during the first few weeks of the college year. The Association Employment

Bureau (see page 187) seeks to obtain remunerative work for students who are largely dependent upon their own resources. The General Secretary, C. Edwin Silcox, gives his full time to the work of the Association. His office is Room K, Rockefeller Hall. Other rooms in the same building are specially designated for the various activities of the Association.

### THE BROWN UNION

The Brown Union is an organization whose chief aim is to encourage a vigorous and healthy social life in the University and to bring under one roof, with competent direction, the various religious, literary, and athletic associations of the students. It occupies Rockefeller Hall, which was built expressly for its use. Its membership is open to students, alumni, and Faculty, and includes almost all the undergraduates. The Board of Management consists of the President of the Union, who must be a member of the Senior class, and four members appointed by the Corporation. The building provides attractive offices for the Brown University Christian Association, the Athletic Association, the musical and dramatic clubs, the *Brunonian*, the *Daily Herald*, the College Bookstore, etc., rooms of various sizes for student meetings, and the usual conveniences of a social club, including large and handsomely furnished rooms for reading and lounging, an auditorium with well-equipped stage, a restaurant and lunch counter, billiard room and barber shop. Informal entertainments and talks by members of the Faculty or other friends of the University are arranged for at frequent intervals. The Secretary and Treasurer, William D. Swaffield, '10, gives his whole time to the affairs of the Union.

### STUDENT ADVISERS

As early as possible in the year the members of the Freshman class are divided into small groups, for each of which some member of the Faculty acts as special counselor. In making the assignments, the expressed preference of either student or adviser is followed whenever practicable. One meeting is usually definitely appointed; but the working of the system is entirely informal, and while it is desired that it shall lead to closer personal relations, it fulfils its chief aim if it permits each student to feel that in any emergency of his college life, great or small, he is free to claim the counsel of a mature and interested adviser.

## DORMITORY ACCOMMODATIONS

IN the University dormitories there are in all one hundred and thirty-two single rooms and thirty-four suites. The rooms in Hope College, University Hall, and Slater Hall are rented unfurnished. Those in Maxcy Hall and Caswell Hall contain all necessary furniture, occupants providing nothing except

bedclothes and towels. A table showing the rent and location of the dormitory rooms is printed in the Appendix. The prices there given include rent, heat, and service for the college year. Lighting is not included; there are meters for each room, and the occupants are charged for the amount of light used.

Each student renting a room must sign a contract therefor in the form given below, on which surety may be demanded, binding him to pay or cause to be paid the rent of the room through the entire year. Where two students rent a room together, each must sign a contract for half the room expenses. This obligation is not impaired by the student's removal from the University, whatever the cause of such removal.

*The following is a contract between Brown University, party of the first part, and the undersigned, party of the second part. I hereby engage room No.                      in                      ; the same not to be occupied by any other person without consent of the party of the first part; and I bind myself to pay or cause to be paid to the Registrar of Brown University the entire rent, including heat and service, amounting to \$                      for the college year beginning September, 191 .*

*It is a part of this agreement that I shall be held responsible for all damage or defacement of such room or its furniture, ordinary wear excepted; also that disuse of the room by me on account of illness, or in case registration is refused me owing to low standing or bad conduct, does not impair the obligation of this contract.*

*Signed* \_\_\_\_\_

*This                      day of                      191 .*

Not more than two students are allowed regularly to occupy a room or suite. No sub-letting of rooms will be allowed. When the University holds full contracts for a room, the tenant or tenants may admit to the use of the room in the daytime one or two students, but not more than two. The names of any such sub-tenants must be reported to the Registrar as soon as the arrangement for sub-tenancy is made. For each sub-tenant the University makes an extra charge of \$1.50 a semester for service. This sum is paid by the tenant-in-chief, if there is but one; if there are two, each pays half.

All rooms not assigned for 1912-13 before May 10, 1912, will be disposed of at a drawing on May 24 at 4.30 p.m. Men intending to enter college in September can arrange to be represented at the drawing by notifying the Registrar.

## UNIVERSITY FEES

**FEES FOR UNDERGRADUATES.** *Tuition:* \$52.50 a semester; \$105 a year. *Incidentals:* \$24 a semester; \$48 a year. *Matriculation fee* (Freshman year only): \$5. *Graduation fee* (Senior year only): \$8.



The incidental expenses are for the printing of programs, examination papers, and the like, the use of the library and the gymnasium, heat for these buildings and for the recitation rooms, and the wages of servants to care for them.

Special students who are taking courses amounting to less than fifteen hours a week pay in proportion to the actual amount taken.

**FEES FOR RESIDENT GRADUATE STUDENTS.** *Tuition:* \$75 a semester; \$150 a year. *Graduation fee:* for the degree of Master of Arts, \$15; for the degree of Master of Science, \$15; for the degree of Doctor of Philosophy, \$25.

Graduate students who are taking courses amounting to less than fifteen hours a week pay \$15 a semester for each three-hour course.

A candidate in residence for the degree of Master of Arts or Master of Science who has paid full tuition for one year may, if necessary to the attainment of his degree, continue his studies for one year more without additional charge.

A candidate in residence for the degree of Master of Arts, who without remitting his studies becomes a candidate for the degree of Doctor of Philosophy, is credited with whatever tuition he has already paid, in case his previous work is allowed to count toward the higher degree.

A candidate for the degree of Doctor of Philosophy who has paid full tuition for two years may, if necessary to the attainment of his degree, continue his studies for two years more without additional charge.

**FEES FOR NON-RESIDENT GRADUATE STUDENTS.** *Registration fee:* \$25. *Tuition:* \$15 a semester; \$30 a year. *Examination fee:* \$15.

A non-resident candidate is entitled, upon payment of the registration and tuition fees, to take one three-hour course in residence. For each additional course taken in residence a fee of \$15 a semester is charged.

A non-resident candidate who has paid tuition for two years may, if necessary to the attainment of his degree, continue his studies for one year more without additional charge, except for work taken at the University.

**LABORATORY FEES.** In addition to the regular fees mentioned above, the following fees are charged for laboratory courses. These fees cover the cost of ordinary supplies; special supplies and breakage are charged extra. \$4.50 for each three-hour semester course in *Botany, Biology, Geology, Elementary Chemistry*. \$7.50 for each three-hour semester course in *Advanced Chemistry, Mechanical Engineering, Physics, Electrical Engineering*.

**SPECIAL FEES.** Candidates for a first degree who do not pay four years full tuition fees must pay for all extra courses counted toward the degree at the rate of \$7.50 per semester for each three-hour course. This amount must be paid at the beginning of the semester preceding the completion of the

degree work. This rule does not apply to courses credited from other institutions or taken during the summer.

Candidates for the degree of A.M. or Sc.M. who do not pay full tuition fees for one year, and candidates for the degree of Ph.D. who do not pay full tuition fees for two years, must pay for all extra courses counted toward the degree at the rate of \$7.50 per semester for each three-hour course. This amount must be paid at the beginning of the semester preceding the completion of the degree work. This rule does not apply to courses credited from other institutions.

### PAYMENT OF UNIVERSITY BILLS

Every student, graduate or undergraduate, must pay in advance, at registration for each semester, all charges for tuition and incidentals for such semester.

Students occupying dormitory rooms must also pay at the above time all room charges for the semester.

Students taking laboratory courses must also pay at the above time all laboratory fees for the semester. These fees vary from \$4.50 to \$7.50 for each three-hour laboratory course.

At the beginning of the second semester all students occupying dormitory rooms or taking laboratory courses must, in addition to the payment of the above amounts, make a deposit of \$5 toward charges for light or breakage during that semester.

Freshmen, candidates for degrees, must pay at registration for the first semester a matriculation fee of \$5.

Candidates for graduation in any year must pay all graduation fees at the beginning of the second semester of that year.

### ESTIMATE OF ANNUAL EXPENSES

The following is an approximate estimate of the annual expenses of a student who occupies (with a room-mate) a dormitory room. It does not include the matriculation fee of \$5 in the first year, the graduation fee of \$8 in the fourth year, nor outlay for clothes and traveling or other strictly personal expenses.

	<i>Moderate</i>	<i>Liberal</i>
<i>Tuition</i>	\$105.00	\$105.00
<i>Incidentals</i>	48.00	48.00
<i>Room rent, including heat and service</i>	60.00	187.50
<i>Board (40 weeks)</i>	160.00	240.00
<i>Books and laboratory expenses</i>	30.00	75.00
<i>Total</i>	<u>\$403.00</u>	<u>\$655.50</u>

THE BROWN UNION conducts a restaurant for its members in Rockefeller Hall; at present the price is \$5 a week.

Students who need to earn money find in the city numerous opportunities for doing so by giving private instruction, by teaching in evening schools, and in various other ways. See page 187.

## FINANCIAL AID TO STUDENTS

**T**HE aid which Brown University gives to students of limited means is granted under three conditions: (1) the recipient must be a candidate for a degree, having been fully admitted to the Freshman class or to advanced standing; (2) the recipient must be of good moral character and maintain a creditable standing in his studies; the aid is withdrawn if the student is placed under college discipline or fails to maintain good scholarship; an average of C is expected; (3) the recipient must be in need of the financial assistance desired. The aid rendered is of three kinds: (1) awards from fellowship, scholarship, and aid funds; (2) loans; (3) payment in cash or in credit on term bills for services rendered.

The administration of the scholarship and aid funds is in the hands of a committee of the Faculty, annually appointed by the Corporation for that purpose. The Dean of the University is the executive of the committee. Applications for scholarships for a given academic year should be filed with the Dean as early as possible after April 1. The committee will take action in each case as soon as all the requisite information is received. The President has charge of the administration of fellowships, loan funds, and the service system.

### [A] FELLOWSHIP, SCHOLARSHIP, AND AID FUNDS

**THE GRAND ARMY OF THE REPUBLIC FELLOWSHIP.** The income of a fund of ten thousand dollars given by the Grand Army of the Republic, Department of Rhode Island, is annually awarded to a graduate of Brown University, of acknowledged excellence in scholarship and character. The recipient must be enrolled as a candidate for the degree of Doctor of Philosophy or have obtained that degree, must reside at Brown University, and must devote himself exclusively to advanced liberal study. Holders of the fellowship are appointed by the President of the University, subject to the approval of the Board of Fellows. Appointments to the fellowship are regularly made for one year, but incumbents of special diligence or ability may be reappointed. Descendants of Union Veterans of the Civil War are always to be preferred when the other qualifications of candidates are equal. The political or religious preferences of candidates cannot be taken into consideration. The President is authorized to make such other conditions, not inconsistent with the above, as he may from time to time deem wise and proper. Applications for this fellowship must be made in writing on blanks furnished by the Dean of the Graduate Department, and must be in the

hands of the President not later than April 15. The Grand Army of the Republic Fellow for 1911-12 is

HARRIS MERRILL BARBOUR

**TEACHING FELLOWSHIIPS.** In addition to the foregoing a number of Teaching Fellowships have been established, information regarding which will be furnished by the President.

**FUNDED SCHOLARSHIPS.** There are now seventy-six scholarships of one thousand dollars, each yielding the beneficiary forty-five dollars annually. With the exceptions indicated below, they bear the names of their founders. The income is awarded annually according to the conditions attaching to each fund.

THE ELEVEN NICHOLAS BROWN SCHOLARSHIPS

THE FOUR UNIVERSITY SCHOLARSHIPS

THE PRESIDENT'S SCHOLARSHIP, founded by President Sears.

THE SIX ALVAH WOODS SCHOLARSHIPS

THE JAMES H. DUNCAN SCHOLARSHIP

THE ISAAC DAVIS SCHOLARSHIP

THE ARNOLD WHIPPLE SCHOLARSHIP, founded by Mrs. Arnold Whipple.

THE EPHRAIM WHEATON SCHOLARSHIP, founded by James Wheaton.

THE JOSEPH BROWN SCHOLARSHIP, founded by Mrs. E. B. Rogers.

THE GARDNER COLBY SCHOLARSHIP

THE CROCKER SCHOLARSHIP, founded by Robert H. Ives and Thomas P. Ives, Trustees.

THE CLARK SCHOLARSHIP, also founded by the Messrs. Ives.

THE GEORGE K. AND H. A. PEVEAR SCHOLARSHIP

THE JOSEPH CHARLES HARTSHORN SCHOLARSHIP

THE ROGERS HIGH SCHOOL SCHOLARSHIP, founded by William Sanford Rogers.

THE JAMES WHEATON SCHOLARSHIP

THE CHARLES THURBER SCHOLARSHIP

THE PARDON MILLER SCHOLARSHIP, founded by Mrs. Ann E. Miller.

THE HEZEKIAH S. CHASE SCHOLARSHIP

THE WILLIAM BUCKNELL SCHOLARSHIP

THE AUSTIN MERRICK SCHOLARSHIP, founded by Mrs. Olive E. Merrick.

THE HORATIO N. SLATER SCHOLARSHIP

THE EARL P. MASON SCHOLARSHIP

THE NEWPORT SCHOLARSHIP, founded by William Sanford Rogers.

THE ALEXIS CASWELL SCHOLARSHIP

THE THREE HENRY JACKSON SCHOLARSHIPS

THE MUMFORD SCHOLARSHIP, founded by Mrs. Louisa D. Mumford.

THE ALBERT DAY SCHOLARSHIP

THE HENRY P. KENT SCHOLARSHIP

THE ROMEO ELTON SCHOLARSHIP

THE FIVE ANNIE E. WATERS SCHOLARSHIPS

THE LEWIS FAIRBROTHER SCHOLARSHIP, founded by Mrs. Lewis Fairbrother.

THE GEORGE LAWTON SCHOLARSHIP

THE JOHN P. CROZER SCHOLARSHIP, founded by Mrs. Margaret Bucknell.

THE JAMES Y. SMITH SCHOLARSHIP

THE TWO S. S. BRADFORD SCHOLARSHIPS

THE FRANCIS R. ARNOLD SCHOLARSHIP

THE CORNELIA E. GREEN SCHOLARSHIP

THE HENRY CLIFFORD KNIGHT SCHOLARSHIP, founded by Miss Amelia S. Knight, in memory of her brother, a member of the class of 1875.

THE THURSTON SCHOLARSHIP, founded by the Honorable Benjamin F. Thurston, of the class of 1849.

THE RUFUS BABCOCK SCHOLARSHIP, founded by Mrs. Caroline Vassar Babcock Jones, in memory of her father, the Rev. Rufus Babcock, of the class of 1821.

THE JAMES FLETCHER BLACKINTON SCHOLARSHIP, founded by Mrs. Mary D. Blackinton, in honor of her husband, James Fletcher Blackinton, of the class of 1847.

THE FIVE WILLIAM A. WHITE SCHOLARSHIPS, founded by Mrs. Abby S. A. White, in honor of her husband, William A. White, of the class of 1857.

THE RICHARDS SCHOLARSHIP, founded by the Rev. William Coolidge Richards, of the class of 1837.

THE SAMUEL WHITE DUNCAN SCHOLARSHIP, founded by Mrs. Mary Duncan Harris.

THE BENJAMIN HUTCHINSON JUDAH SCHOLARSHIP

THE S. DRYDEN PHELPS SCHOLARSHIP, founded by the Rev. S. Dryden Phelps, of the class of 1844, the income to be given each year to some student who is preparing for the Baptist ministry.

THE ELIOT LOOMIS COLLINS SCHOLARSHIP, founded by Clarkson A. Collins in memory of his son, Eliot Loomis Collins, of the class of 1910, "the income to be given each year to some member of the Junior class needing pecuniary aid, who may possess his characteristic qualities of earnestness of application, steadfastness of character, and cheerful personality."

THE E. BENJAMIN ANDREWS SCHOLARSHIP of one thousand dollars, founded by the class of 1898.

*There are also the following scholarships of larger amounts:*

THE TWO GEORGE J. SHERMAN SCHOLARSHIPS, paid from the income of a fund of two thousand five hundred and sixty-five dollars.

THE BARTLETT SCHOLARSHIP of four thousand dollars, founded by Mrs. Elizabeth Slater Bartlett; the income to be "devoted to the support of one or more students needing pecuniary aid, and giving promise, by studious aim and by character and scholarship, of rising to distinction and usefulness."

THE GLOVER SCHOLARSHIP of five thousand dollars, founded by Henry R. Glover, "in memory of his father, Samuel Glover, of the class of 1808, and of his brother, Samuel Glover, Jr., of the class of 1839."

THE REBECCA A. WHEELER SCHOLARSHIP of fifteen hundred and seventy-one dollars; the income to assist some worthy student, preferably a candidate for the Baptist ministry.

THE SCHOLARSHIP OF THE CLASS OF 1838 of thirty-eight hundred dollars.

THE JOSEPH CHARLES HARTSHORN SCHOLARSHIP of two thousand dollars.

THE TWO BANIGAN SCHOLARSHIPS of three thousand dollars each, founded by Joseph Banigan, of Providence; the income as far as necessary to be used each year to defray the tuition of two students of the University.

THE GEORGE IDE CHACE SCHOLARSHIP of five thousand dollars, founded by Professor George Ide Chace, the income to be assigned each year by the Faculty to some member of the Senior class needing the money, who shows "marked ability, exemplary industry, generous aspirations, and irreproachable character." If in the Senior class there chances to be no person fulfilling the requirements of this scholarship, the proceeds of the scholarship for that year must be appropriated to the purchase of books for the Library of the University.

THE ABBY WHEATON CHACE SCHOLARSHIP of four thousand dollars, also founded by Professor George Ide Chace, the income to be assigned yearly by the Faculty to some member of the Junior class needing the money, who shows "marked ability, exemplary industry, generous aspirations, and irreproachable character." If in the Junior class there chances to be no person fulfilling the requirements of this scholarship, the proceeds of the scholarship for that year must be appropriated to the purchase of books for the Library of the University.

THE JOHN L. LINCOLN SCHOLARSHIP of twenty-five hundred dollars, founded by Abby G. Beckwith.

THE TREMAN BECKWITH SCHOLARSHIP of twenty-five hundred dollars, founded by Abby G. Beckwith.

**THE THAYER SCHOLARSHIP**, founded by Edward C. Thayer, in honor of his father, Joseph Thayer, of the class of 1815; the income to be for the education of any young man or woman a resident of Uxbridge, Massachusetts, indorsed by the selectmen and superintendent of schools there, needing pecuniary aid, and giving promise by character and scholarship of a life of usefulness. If there is no applicant from Uxbridge, the income may go to any applicant from Massachusetts who fulfils the conditions.

**THE TWO WALTER G. WEBSTER SCHOLARSHIPS**, founded by the Rev. Walter G. Webster, of the class of 1878; the income to go each year to two young men, members of the Freshman class, holding the full diploma of the Classical High School of the City of Providence and duly matriculated for the degree of Bachelor of Arts; "the nomination to rest with the Principal of said school, and to be made on the basis of character and scholarship, due regard being had to the need of such assistance."

**THE S. W. MARSTON SCHOLARSHIP**, founded in the name of his father by Edgar L. Marston. This scholarship yields two hundred dollars a year, and is open to any graduate of William Jewell College who may be recommended by the President of that institution.

**THE THREE E. L. MARSTON SCHOLARSHIPS**, founded by Edgar L. Marston. Each of these scholarships yields two hundred dollars a year. The first scholarship is open to any graduate of La Grange College who may be recommended by the President of that institution. The second is open to any graduate of Baylor University under similar conditions. The third is open to any graduate of the Central High School in St. Louis, Missouri, subject to the recommendation of the Principal.

**THE EATON SCHOLARSHIP** of two thousand dollars, founded in memory of her husband by Mrs. Caroline B. Eaton; the income to be used "in the aid of indigent Baptist young men having the ministry in view, preference being given to young men from New Hampshire."

**THE ALEXANDER FARNUM SCHOLARSHIP** of two thousand dollars, founded by Rev. Augustus Woodbury; the income to be given to such student as the Faculty shall select, the primary condition being that such student shall have been prepared for college at Phillips Exeter Academy in Exeter, New Hampshire.

**THE ALBERT HARKNESS SCHOLARSHIP** of three thousand dollars, founded by Professor Albert Harkness; the income to be paid annually under the direction of the Faculty to some student of excellent character and high scholarship who shall be in need of pecuniary aid.

**A FRIEND'S SCHOLARSHIP** of five thousand dollars, founded by a friend of the University, the income to be awarded annually to some student in need of aid.

**THE ELLEN READ NEWELL SCHOLARSHIP** of two thousand dollars, founded by George W. Newell in memory of his wife; "the income to be expended

(1) in behalf of some worthy graduate of the Pawtucket High School who may need financial help, (2) to such other meritorious student as the President or Faculty may designate."

*The following scholarships have been in part established:*

**THE TWO GEORGE HALE BACON MEMORIAL SCHOLARSHIPS**, paying each recipient one hundred and fifty dollars a year, founded by George A. Bacon in the name of his father. The awards are made only to young men in need of assistance and solely on grounds of scholarship and personal character, no other consideration to receive any weight whatever.

**AID FUNDS.** There are six aid funds at the disposal of the University. The income of these funds is divided into scholarships of varying amounts, which are awarded under the general conditions applicable to all scholarships. They are as follows:

**THE AARON LUCIUS ORDWAY MEMORIAL FUND** of twenty-five hundred dollars, founded by Samuel H. Ordway in the name of his father, "the income to be used in the discretion of the President to assist regular students of the University who are in need of assistance. Each student who accepts such assistance shall in writing acknowledge the receipt of the same and pledge himself to repay the amount so received by him as soon as he can conveniently afford to do so, all sums so repaid to be added to the principal."

**THE NANCY GOODNOW FUND** of two thousand dollars, the income to be expended in assisting one or more students of the University who are preparing to be ministers of the Baptist denomination in the United States.

**THE AID FUND**, established by friends of the University in 1868 and now amounting to \$9300.

**THE DANIEL W. LYMAN FUND FOR STUDENTS**, established by Daniel W. Lyman and now amounting to \$72,250.

**THE WILLIAM GROSBECK GODDARD MEMORIAL FUND** of \$3500, founded by Col. Robert H. I. Goddard in the name of his son, "the income to be used by the President or acting President of the University, in his discretion, to aid young men without adequate means to obtain an education. Each beneficiary shall give a receipt for all money received, and shall agree, without making any written pledge, to refund amounts received by him whenever he can do so conveniently."

**THE EDWIN A. W. HARLOW FUND**, founded by Edwin A. W. Harlow, now amounting to \$10,400, the income to be "for assisting poor young men of excellent moral character in the Academic Department."

**UNIVERSITY SCHOLARSHIPS.** In addition to the income of the Scholarship and Aid Funds, there have been established University scholarships, which are of three grades:



(1) A small number yielding each \$75 a semester or \$150 a year, awarded to a few Juniors and Seniors of especially high scholarship.

(2) A number yielding each \$52.50 a semester or \$105 a year.

(3) A number yielding each \$30 a semester or \$60 a year, used in part to supplement the smaller endowed scholarships, and also for those students needing relatively less assistance.

It is expected that the holders of these scholarships will regard them as in a certain sense loans, and will at some time after graduation return to the treasury the amount awarded, to be used for the increase of the permanent scholarship funds, or that they will in some other way contribute to the endowment of the University.

### [B] LOAN FUNDS

I. The Alumni Loan Fund, now amounting to about \$4300, was established by the Alumni Association at the Commencement of 1900 by a vote transferring to the Treasurer of the University the fund formerly known as the Brown Loyalty Fund, to be used as a loan fund for students. The principal of this fund is loaned at interest, to be repaid as agreed upon in each instance.

II. There is another fund, of several hundred dollars, which is loaned in small amounts without interest, for short periods, to students unexpectedly needing temporary assistance.

### [C] SERVICE

The University is able to give employment to a number of students as monitors, assistants in the libraries and laboratories, members of the choir, and clerks in the Registrar's office. Not more than two hours a day are ordinarily required of any student; the compensation is made at definite rates. At present about \$6000 a year is appropriated for service, and employment is given to about eighty students, who receive amounts varying from \$30 to \$60 a semester.

The University also coöperates with the Christian Association in securing employment for students by business houses and residents of the city. Students who desire any kind of work are requested to make application to the General Secretary of the Brown University Christian Association, Rockefeller Hall.

## PREMIUMS, PRIZES, AND HONORS†

### FOR EXCELLENCE IN PREPARATORY STUDIES

THE PRESIDENT'S PREMIUMS, derived from the income of a fund presented to the University in 1843 by President Wayland, supplemented from the income of the Hicks Prize Fund, No. 2, are awarded each year to those members of the Freshman class who upon examination are found to excel in the studies required for admission to the University in Greek and Latin. First and Second Premiums are awarded in each of these studies. The examinations deal with the general principles and laws of the languages involved rather than with irregularities and exceptions. Special importance is attached to the pupil's familiarity with the subject-matter of the works read, and to his ability to translate with accuracy and facility into clear, appropriate, and idiomatic English. The examination in Greek is held in 5 Maxcy Hall at 2.30 p.m. on the second Saturday of the first semester, and that in Latin in 1 Sayles Hall at 2.30 p.m. on the third Wednesday. The award of these premiums in 1911 was as follows:

*In Greek the first premium to* FREDERIC JOHNSON HUNT, *instructed in the Classical High School, Providence.*

*The second premium to* GEORGE HENRY ANTHONY LA ROE, *instructed in the Classical High School, Providence.*

*In Latin the first premium to* FREDERIC JOHNSON HUNT, *instructed in the Classical High School, Providence.*

*The second premium to* WILLIAM RUSSELL BURWELL, *instructed in the Hope Street High School, Providence.*

THE HARTSHORN PREMIUMS IN MATHEMATICS, derived from the income of a fund of one thousand dollars presented to the University in 1872 by Joseph Charles Hartshorn, of the class of 1841, are awarded each year to the two members of the Freshman class who upon examination are found to excel in the mathematical studies required for admission to the University. The examination is held in 27 Wilson Hall at 2 p.m. on the third Saturday of the first semester. The award of these premiums in 1911 was as follows:

*The first premium to* JOHN ANTHONY OWEN, JR., *instructed in Norwich Free Academy, Norwich, Connecticut.*

*The second premium to* RALPH LEON BLANCHARD, *instructed in Hebron Academy, Hebron, Maine.*

† The premiums and prizes enumerated here are, with the exception of the *Society of Colonial Dames Prize in American History* (see page 192), intended for men. The students of the Women's College are, however, entitled to compete in all examinations for premiums and prizes offered in Brown University. In case any woman is entitled to a first premium, one is awarded her by the Dean of the Women's College. For premiums awarded to women in 1911 see page 245.

THE ENTRANCE PREMIUMS IN FRENCH, derived from the income of the Hicks Prize Fund, No. 2, are awarded each year to the two members of the Freshman class who upon examination are found to excel in the French studies required for admission to the University. The examination is held in 1 Sayles Hall at 2 p.m. on the fourth Wednesday of the first semester. The award of these premiums in 1911 was as follows:

*The first premium to ARTHUR WILLIAM CATE, instructed in the Classical High School, Providence.*

*The second premium to RALPH LEON BLANCHARD, instructed in Hebron Academy, Hebron, Maine.*

THE ENTRANCE PREMIUMS IN GERMAN, derived in part from the income of the Hicks Prize Fund, No. 2, are awarded each year to the two members of the Freshman class who upon examination are found to excel in the German studies required for admission to the University. The examination is held in 5 Sayles Hall on the fourth Saturday of the first semester. In 1911 these were the CAESAR MISCII PRIZES, and were awarded as follows:

*The first prize to WALLACE ALLYN GANNON, instructed in the Barringer High School, Newark, New Jersey.*

*The second prize to ARTHUR WILLIAM CATE, instructed in the Classical High School, Providence.*

## FOR EXCELLENCE IN UNIVERSITY STUDIES

THE CARPENTER PRIZES FOR ELOCUTION, derived from the income of a fund established in 1867 by Thomas Carpenter, are awarded each year to the three students to whom are assigned the first, the second, and the third rank of excellence in elocution. The competition is open to all members of the Sophomore class, and to those members of the Junior class who did not enter the preliminary competition in their Sophomore year. The selections declaimed may be either prose or verse. They must be approved by the Professor of Public Speaking, with whom competitors must enter their names not later than the first day of February. A preliminary contest for the purpose of selecting the speakers takes place in the early part of the first semester; all arrangements for it are in the hands of the Professor of Public Speaking. The committee of award consists of five members,—the Professor of Public Speaking, who is the chairman, two persons selected by the Corporation, and two persons selected by the Sophomore class during the first semester of the year; no one who is or has been a member of the class is eligible to membership in the committee. In 1912 the contest will be held in Manning Hall on April 30. In 1911 these prizes were awarded as follows:

## BROWN UNIVERSITY

*The first prize to JOHN HENRY WILLIAMS*

*The second prize to DANIEL HARRISON KULP*

*The third prize to LAWTON VINCENT CROCKER*

THE HICKS PRIZES FOR EXCELLENCE IN DEBATE, established by the Honorable Ratchliffe Hicks, of the class of 1864, are annually awarded as follows:

I. Two prizes of fifty dollars each, one in each of the two series of contests for the selection of the representatives of the University in the inter-collegiate debates. In each instance the prize is given to the man showing the greatest ability both in the preliminary trials and in the final trial. In awarding the prize, regard is given to thought, style, and delivery. The judges are three, appointed by the Debating Union. In 1911 these prizes were awarded to

ARTHUR FRANKLIN NEWELL and IRA LLOYD LETTS

II. A first prize of thirty dollars and two second prizes of twenty dollars to the students showing the greatest ability in a public debate between the representatives of the Junior and Sophomore classes. Each class is represented by three men, whom a committee appointed by the President of the University chooses from the preliminary contestants at least a month before the public debate. This committee also determines the subject and makes the necessary arrangements. The judges in the public debate are three, one appointed by the President, and one by each group of competitors. The prizes are awarded irrespective of the decision upon the debate as a whole. Any one prize may be withheld if no one is adjudged to deserve it. In making the award, regard is given to thought, style, and delivery. In 1912 the public debate will be held on May 14. In 1911 these prizes were awarded as follows:

*The first prize to IRA LLOYD LETTS*

*The second prizes to ROBERT CLOUTMAN DEXTER and DANIEL GERALD DONOVAN*

THE DUNN PREMIUM. The income of a fund of one thousand dollars, presented to the University in 1872 by pupils and friends of Professor Robinson Potter Dunn, is given, at the end of the Junior year, to the student having the highest standing in the courses in rhetoric, English composition, and public speaking. In making the award, regard is given to the number of such courses taken as well as to the rank attained in them. In 1911 this premium was awarded to

FRED CLARENCE PERRY

THE CARPENTER PREMIUMS, two in number, are derived from the income of funds established in 1867, one by Thomas Carpenter and one by Lydia Carpenter. They are assigned at the end of the Senior year to the two members of the Senior class who, "already on scholarships, shall, in the judgment of the Faculty, unite in the highest degree the three most important elements

of success in life,—ability, character, and attainment." In 1911 these premiums were awarded to

EDWIN ARTHUR DOW and DAVID JAMES PURDIE

**THE HOWELL PREMIUM.** The income of a fund amounting to one thousand dollars, presented to the University in 1867 by Gamaliel Lyman Dwight, is given at the close of the first semester of the Senior year to the student who, "having a good record of deportment, has the highest rank in Mathematics and Natural Philosophy." To be considered a candidate for the premium, a student must, in each semester from the Freshman year to the end of the first semester in the Senior year, take at least one of the elective courses in pure or applied mathematics. In 1911 this premium was awarded to

DAVID JAMES PURDIE

**THE CLASS OF 1873 PRIZE.** The income of a fund of one thousand dollars, presented to the University by the class of 1873, is awarded each year to that member of the Senior class who writes the best essay on a historical or a philosophical subject. The subjects, which are of a historical nature one year and of a philosophical nature the next, are assigned by the respective departments. For 1911–12 the subject is *The Regeneration of Prussia prior to the War of Liberation*. For 1910–11 the subject was: *A statement and criticism of the Socratic doctrine that "Virtue is Knowledge."* The prize was awarded to

CLARE STEELE JOHNSTON

**THE FOSTER PREMIUM IN GREEK** is derived from the income of a fund of three thousand dollars bequeathed to the University in 1880 by the Honorable Lafayette Sabine Foster, of the class of 1828. In accordance with the terms of the donor's will, the income of this fund is to be "annually paid to that scholar of the institution who passes the best examination in the Greek language, the examination to be made in the first, third, and twenty-fourth books of Homer's *Iliad*, or in the *Oration on the Crown* by Demosthenes." The examinations are open to the members of the Senior class. The next examination will be held early in May, 1912; candidates will be examined in the *Oration on the Crown*. In 1911 the premium was awarded to

THOMAS HENRY QUIGLEY

**THE LUCIUS LYON PREMIUMS IN LATIN** are derived from the income of a fund of five thousand dollars presented to the University in 1893 by Mrs. Caroline L. Lyon, in memory of her husband, Lucius Lyon, of the class of 1844. Five-tenths of the income each year forms the first premium, three-tenths the second, and two-tenths the third. Any part of the income not needed in any given year must be added to the fund. The premiums are awarded on the basis of a special examination held during the second semester of the Senior year. The examination may relate to any or all of the following sub-

jects: the Latin language, Roman literature, Roman history. The President of the University and the head of the Department of Roman Literature and History prescribe the conditions for admission to the examination. In 1911 the first premium was awarded to

THOMAS HENRY QUIGLEY

**THE BENNETT PRIZE.** The income of a fund of four hundred dollars, established by Philo S. Bennett in 1903, will be awarded annually for an essay on Free Government. The conditions governing the competition will be announced later.

**THE CLASS OF 1880 PRIZES,** established in 1905 by the class of 1880, are awarded each year to the undergraduates of Brown University who show the most ability in presenting arguments on some current question of importance to Brown University. The subject for discussion, the time, and the manner of presentation are all determined by representatives of the English department in consultation with the president of the Debating Union and the editors-in-chief of the *Brunonian* and the *Brown Daily Herald*. The prizes are awarded by a board of five judges: two are appointed by the President of the University, two by the undergraduate members of the committee in charge; the fifth is a member of the English department.

In 1911-12 a first prize of thirty-five dollars and a second prize of twenty-five dollars will be awarded to the students who show the most ability in a public discussion of the subject: *Resolved: that the ownership of all Brown undergraduate publications should be vested in the student body, and that no member of a managing board should receive compensation for his labors.* This discussion will be held on December 13; a preliminary discussion will be held on December 6. A first prize of twenty-five dollars and a second prize of fifteen dollars will be awarded to the writers of the best argumentative essays of from three thousand to five thousand words upon the same subject. The essays must be signed with an assumed name; they must be in the hands of the Registrar before 4 p.m., December 8. Either prize for the essay may be withheld if the judges deem it best. A student may enter both competitions. For 1910-11 the subject was: *Are French and German more profitable college studies than Greek and Latin?* The prizes were awarded as follows:

*The first prize for the discussion to* ROBERT CUSHMAN MURPHY

*The second prize for the discussion to* EDWARD ANDREW CUSHMAN MURPHY

*The first prize for the essay to* HERBERT DUNCAN ROLLASON

*The second prize for the essay to* IRA LLOYD LETTS

**THE SOCIETY OF COLONIAL DAMES PRIZE IN AMERICAN HISTORY.** The income of a fund of fifteen hundred dollars, known as The Roger Williams Fund established by the National Society of Colonial Dames in the State of Rhode Island and Providence Plantations, given to the University in 1906, is awarded each year as a prize for the best essay on a subject in American

colonial history. The competition is open to Juniors, Seniors, and Graduates, and to men and women on equal terms. Essays must show independent use of authorities, and should, in general, extend to at least four thousand words. Detailed regulations governing the competition are announced from year to year, and the name of the successful competitor is announced at Commencement. The subject for the essay in 1911-12 is: *Rhode Island Trade and Commerce during the American Revolution*. For 1910-11 the subject was: *The Stamp Act in Rhode Island*. The prize was awarded to

LIDA MAY BASSETT

THE BISHOP MCVICKAR PRIZES were founded by the late Rt. Rev. William N. McVickar, Bishop of the Protestant Episcopal Diocese of Rhode Island, and are continued by his sister, Miss E. C. McVickar. A first prize of fifty dollars, and a second prize of twenty-five dollars, for the best essays of from three to four thousand words on a subject assigned by the Department of Biblical Literature. The competition is open to undergraduate men who are, or have been, students in the Department of Biblical Literature. Those who intend to compete must give their names to the head of the department not later than March 1, and essays, under an assumed name, must be delivered to the Registrar not later than the first Saturday in May. For 1911-12 the subject is: *Hellenism in Judea*. For 1910-11 the subject was: *Israel's Settlement in Canaan*. The prizes were awarded as follows:

*The first prize to* FREDERIC MARSHALL JENCKS

*The second prize to* CLARENCE FRANK GIFFORD

THE WILLIAM GASTON SCHOLARSHIP. This fund of five thousand dollars was established in 1899 by the widow and children of the Honorable William Gaston, LL.D., of the class of 1840. Its income is awarded annually by the Faculty solely upon merit, without reference to financial condition. For 1911-12 this scholarship was awarded to

ARTHUR FRANCIS BUDDINGTON

THE GASTON PRIZE MEDAL FOR EXCELLENCE IN ORATORY. From the income of a fund of three thousand dollars established in 1894 as a memorial to the Honorable William Gaston, LL.D., of the class of 1840, a gold medal is annually awarded to the member of the graduating class who delivers the best original oration in English. The orations are not to exceed fifteen hundred words. In order to compete for the prize, a student must deposit with the Registrar a typewritten copy of his oration, signed with an assumed name, six weeks before the public competition. From these orations a committee appointed by the President of the University selects not more than six for delivery. The committee of award in the final contest consists of three members appointed by the President. In making the award, regard is given to thought, style, and delivery. The winner of the medal is entitled to deliver an oration at Commencement. In 1912 the orations must be deposited

with the Registrar on or before March 26; the public competition will be held on May 7. In 1911 this prize was awarded to

GEORGE CHRISTIAN STUCKER

## HONOR SCHOLARSHIPS

To encourage proficiency in studies and to provide recognition for successful application to college work, the Faculty has established Honor Scholarships without aid as follows:

THE JAMES MANNING SCHOLARSHIPS, awarded to those undergraduates whose work throughout the year has been of such excellence that they are deemed worthy of very high academic distinction.

For 1911-12 these scholarships were awarded as follows:

### *Class of 1911*

Herbert Frederick Cawthorne	Clare Steele Johnston
Edwin Arthur Dow	David James Purdie
Thomas Henry Quigley	

### *Class of 1912*

Arthur Francis Buddington	John Henry Williams
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THE FRANCIS WAYLAND SCHOLARSHIPS, awarded to those undergraduates who have shown marked excellence in their work, but have not attained the standard required for the James Manning scholarships.

For 1911-12 these scholarships were awarded as follows:

### *Class of 1911*

Edward Bartlett Allen	Ira Winsor Knight
John Vincent Keily	Warren Andrew Sherman

### *Class of 1912*

Ralph Gibney Hurlin	Irving Russell Smith
Howard Carleton White	

### *Class of 1913*

William Matthew Sullivan	Robert Stanley Thomson
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## APPOINTMENTS FOR COMMENCEMENT

At Commencement four members of the graduating class deliver original orations in English of not more than fifteen hundred words each. One speaker is the winner of the Gaston medal; the others are selected by the Faculty from nominations by the heads of departments. The basis of selection is scholarship, ability to write, and ability to speak. The students thus appointed confer with the Professor of Rhetoric, who advises with them in regard to the choice and treatment of their subjects, and with the Profes-



sor of Public Speaking, who trains them in the delivery of their orations. Before Commencement each speaker must hand to the Professor of Rhetoric a copy of his oration for preservation in the University Library. In 1911 the speakers selected by the Faculty were:

EDWIN ARTHUR DOW

THOMAS HENRY QUIGLEY

ROBERT CUSHMAN MURPHY

MORRIS JACOB WESSEL

## FINAL HONORS

FINAL HONORS in any department are awarded, at the completion of the studies leading to a bachelor's degree, to those who have secured: (1) A mark of H in courses in the department aggregating twelve or more semester hours; (2) a mark of C or H in eighty-five per cent of all their courses of study. In any department, however, certain specified courses may not be included in those counted for Final Honors. The names of all students awarded Final Honors are printed in the Commencement Program and in the Annual Catalogue. In 1911 the awards were as follows:

EDWARD BARTLETT ALLEN, *Chemistry*.

HERBERT FREDERICK CAWTHORNE, *Philosophy*.

PHILIP CHADSEY CURTIS, *Chemistry, Germanic Languages and Literatures*.

EDWIN ARTHUR DOW, *Civil Engineering, Mathematics, Physics*.

CHARLES MILLER FRANKLIN, *Civil Engineering*.

FREDERIC MARSHALL JENCKS, *Mathematics*.

JOHN VINCENT KEILY, *Civil Engineering*.

IRA WINSOR KNIGHT, *Electrical Engineering, Physics*.

DAVID JAMES PURDIE, *Mathematics, Mechanical Engineering, Mechanics and Mechanical Drawing, Physics*.

THOMAS HENRY QUIGLEY, *Greek Literature and History, History, Roman Literature and History, Romance Languages and Literatures*.

ROYAL PAUL RICHARDSON, *Chemistry*.

WARREN ANDREW SIHERMAN, *Philosophy*.

MORRIS JACOB WESSEL, *English, Social and Political Science*.

HELEN NEWELL BELL, *Romance Languages and Literatures, Germanic Languages and Literatures*.

GERTRUDE HILDRETH CAMPBELL, *English, Greek Literature and History, Mathematics, Philosophy, Roman Literature and History*.

EDITH MARIE LINNÉA CARLBORG, *Germanic Languages and Literatures*.

STELLA GERRER, *Germanic Languages and Literatures*.

ALICE FRANCES HILDRETH, *Education, Mathematics*.

MARION BOWLER LESTER, *Germanic Languages and Literatures, Greek Literature and History, Roman Literature and History*.

MARY CATHERINE McMAHON, *Germanic Languages and Literatures*

SALLIE WOLFF MIELATZ, *Germanic Languages and Literatures.*

CATHERINE FRANCES NULTY, *History, Romance Languages and Literatures.*

BERTHA ANNIE PAYSON, *Romance Languages and Literatures.*

JOSEPHINE THOMSON SACKETT, *History.*

ELIZABETH DEXTER THACHER, *Education, Germanic Languages and Literatures, Roman Literature and History.*

FLORA ELLA WILBUR, *Germanic Languages and Literatures, History.*

MARJORIE PHILLIPS WOOD, *Germanic Languages and Literatures.*

# DEGREES CONFERRED IN 1911

## DEGREES IN COURSE

### BACHELOR OF ARTS

Edward Bartlett Allen  
Earle Bernon Arnold  
Vernon Edgar Babington  
Matthias Wisen Baker, Jr.  
Charles Archilaus Barry  
John Bernard Brennan, Jr.  
Chester Thomas Calder  
Benjamin Harold Cate  
Clifford John Cawley  
Herbert Frederick Cawthorne  
Alfred Elwood Corp  
Herbert Briggs Francis  
Guy Harold Gifford  
William Clement Giles  
Clare Steele Johnston  
James Russell McKay  
Christopher Aloysius Nolan

Arthur Palmer  
Thomas Aquinas Pickett  
LeRoy Gardiner Pilling  
Thomas Henry Quigley  
Joseph Ernest Raia  
Royal Paul Richardson  
Roger Sherman Robinson  
Julius Adolph Saacke  
Judah Semonoff  
Warren Andrew Sherman  
Charles Peck Sisson  
Russell Eyre Sisson  
Schuyler Merritt Skelding  
Robert Fulton Skillings  
George Christian Stucker  
Ellis Laurie Yatman  
Joseph Zarmon

Irene Maude Bedell  
Helen Newell Bell  
Florance Hoover Bushell  
Gertrude Hildreth Campbell  
Anna Spencer Canada  
Edith Marie Linnéa Carlborg  
Emma Henrietta Dahlgren  
Stella Gerber  
Helen Melissa Harvey  
Mildred Annie Hatch  
Sadie Hewitt  
Mabel Irene Hinton  
Alice Dudley Holman  
Elizabeth Wilson Hughes

Marion Bowler Lester  
Mary Catherine McMahon  
Sallie Wolff Mielatz  
Irene Doré Nelson  
Hannah Senior Nicholson  
Bertha Annie Payson  
Helen Spofford Pingree  
Jennie Fatima Robinson  
Josephine Thomson Sackett. *With  
the class of 1909*  
Clara Ailman Stanhope  
Elizabeth Dexter Thacher  
Flora Ella Wilbur  
Marjorie Phillips Wood

### BACHELOR OF PHILOSOPHY

John Albert Anderson  
Paul Appleton  
Harold Oakley Barker  
Joshua Beliafsky

Robert Wellington Bingham, Jr.  
Earle Francis Bliss  
Edwin Carpenter Bosworth  
Wendell Stimpson Brown

Robert Gamble Caswell  
 Robert Dexter Chase  
 John Clarence Clark  
 Philip Chadsey Curtis  
 Silas Benjamin Dishman, Jr.  
 John Ervin, Jr.  
 John Howard Forrist  
 Lawrence Gardner  
 Robert Nichols Gardner  
 John Edward Hineckley  
 Henry Robinson Howe  
 Howard Greenough Hubbard  
 Frederic Marshall Jencks  
 Arthur Kiernan  
 Charles Manton King  
 Harold Leslie Kohler  
 Percy Douglas McPhee  
 Mark Mohler

Lida May Bassett  
 Bessie Edith Bloom  
 Ruth Constance Burroughs  
 Lyla Cameron Crapo  
 Arline Field  
 Clara Estelle Hefner  
 Alice Frances Hildreth  
 Edith Lauraette Knights

Courtland Sawin Mudge  
 Robert Cushman Murphy  
 Joseph Serpa Neves  
 Lewis Alfred Newfield  
 Samuel Ryder Parks  
 Winfield Cary Potter. *With the class of 1910*  
 Adrien Edward Regnier. *With the class of 1910*  
 Harry Edward Roelke  
 Albert Whitman Sweet  
 Wendell Richardson Swint  
 Raymond Samuel Taylor  
 Erwin Clayberg Tompkins  
 Harold Wallace  
 Morris Jacob Wessel  
 Joseph Timothy Witherow

Catherine Virginia Golding Levere  
 Eva Waterman Magoon  
 Jeannette Bell Moffitt  
 Nellie Blithe Nicholson  
 Catherine Frances Nulty  
 Bina May Shorey  
 Rebecca Samuel Watson

#### BACHELOR OF SCIENCE IN CIVIL ENGINEERING

Franklin Abbott Buck  
 Henry Morgan Burke  
 Robert Henry Munson Canfield  
 Linwood Collins Chase  
 Earl Raymond Donle  
 Edwin Arthur Dow  
 Charles Miller Franklin  
 Michael Henry Gallagher  
 Allan Westcott Greene

Walter Gardiner Harrington  
 Samuel Morey Holman, Jr.  
 John Vincent Keily  
 John McGill Montz  
 George Denny Moore  
 Beverly Francis Perry  
 Fremont Emerson Roper  
 Lewis Alexander Shepherd  
 Arthur Edgar Staff

#### BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

James Coutts Archie  
 Harold Borden Bliss  
 Andrew Lyndon Breckenridge  
 John Osborne Chesley

Herbert Ray Connor  
 Frank Otis Drown  
 Jacob Mark Howarth  
 Seward Thompson Jarvis

Charles Leon Leland  
 James Timothy O'Neil  
 Irving Wilbert Pettengill  
 David James Purdie  
 Isaac Sylvester Rowe. *With the class*  
*of 1910*

Brenton Greene Smith  
 David Fogg Watson, Jr.  
 Alan Arthur Wood  
 Foster Verne Young

## BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

Ernest Sherman Fitz  
 Earle Moulton Horton. *With the*  
*class of 1910*

Ira Winsor Knight  
 James Charles Larkin

## MASTER OF ARTS

Sara MacCormack Algeo, A.B.  
 Edward Bartlett Allen  
 Ivan Elijah Baxter, A.B.  
 Elizabeth Marie Boardman, A.B.  
 Charles Walter Briggs, Ph.B.  
 Charles Augustine Carman, A.B.  
 Martha Warren Case, A.B.  
 Harry Duffield Clough, A.B.  
 Andrew Burroughs Comstock, A.B.  
 Sumner Webster Cushing, Sc.B.  
 Katharine Helen Degnan, A.B.  
 Theodore Everett Dexter, A.B.  
 Grove Samuel Dow, A.B.  
 Ransom Harvey, Jr., A.B.  
 Henry Horace Hibbs, Jr., A.B.

Elizabeth Cathcart Hickson, Sc.B.  
 George Herbert Holt, A.B.  
 Lloyd Randolph Killam, A.B.  
 Herman Adolph Liebig, A.B.  
 Elise Emeline McCausland, A.B.  
 Omar Roscoe McCoy, A.B.  
 Caroline Millard Morton, A.B.  
 Katherine Upham Peirce, A.B.  
 John Donald Pryor, Ph.B.  
 Thomas Henry Quigley  
 Lester Angell Round, A.B.  
 Robert Francis Seybolt, Ph.B.  
 Bina May Shorey  
 Harold Avery Swaffield, Ph.B.

## MASTER OF SCIENCE

Albert Arnold Bennett, A.M.  
 Albert Potter Farwell, Ph.B.

Norman Edward Holt, A.B.  
 Kotaro Tanaka, Sc.B.

## DOCTOR OF PHILOSOPHY

Carol Aronovici, Litt.B., B.S.A.

THESIS: "Some Nativity and Race Factors in Rhode Island."

Moses Leverock Crossley, Sc.M.

THESIS: "Certain Derivatives of Anthraquinone of the Amido and Sulphonic Series."

Louis John Gillespie, Ph.B.

THESIS: "The Gas Metabolism of the Colon and Typhoid Bacilli."

George Barrows Obeir, Sc.M.

THESIS: "The Hygrometric Properties of Gelatinous Media,"

## BROWN UNIVERSITY

## DEGREES OUT OF COURSE

## BACHELOR OF ARTS

Ernest Granger Hapgood. *With the class of 1901*

## HONORARY DEGREES

## MASTER OF ARTS

CHARLES FREDERICK HARPER

MARY COLMAN WHEELER

FRANK EVANS SEAGRAVE

## DOCTOR OF LETTERS

WILLIAM EDWARD SIMONDS

WILLIAM WARNER HOPPIN

ELLEN FITZ PENDLETON

## DOCTOR OF DIVINITY

WILLIAM BROWN PARSHLEY

## DOCTOR OF SCIENCE

HOMER JAY WHEELER

## DOCTOR OF LAWS

GEORGE GRAFTON WILSON

CHARLES NAGEL

# LIST OF STUDENTS

## GRADUATES

- Richard Day Allen *Providence*  
A.B. (*Brown University*) 1910. Education, Economics, English. Enrolled candidate for A.M.
- Everard Appleton *Providence*  
A.B. (*Brown University*) 1904. Political Science. Registered candidate for A.M.
- Charles Raymond Austin *Providence*  
A.B. (*Brown University*) 1902; A.M. 1903. Latin, Greek, English. Enrolled candidate for Ph.D.
- Justin Homer Bacon *Kalamazoo, Mich.*  
A.B. (*Brown University*) 1896; A.M. 1897. German.
- Harris Merrill Barbour *Providence*  
A.B. (*Brown University*) 1906; B.D. (*Newton Theological Seminary*) 1909. Philosophy, Biology. Registered candidate for Ph.D.
- Helen Newell Bell *Bristol*  
A.B. (*Brown University*) 1911. Education, German. Enrolled candidate for A.M.
- Irving Hill Blake *Augusta, Me.*  
A.B. (*Bates College*) 1911. Biology, Botany. Enrolled candidate for A.M. Registered candidate for Ph.D.
- William Ward Browne *West Lynn, Mass.*  
A.B. (*Brown University*) 1908; A.M. 1909. Bacteriology, Comparative Anatomy. Enrolled candidate for Ph.D.
- Joseph Richard Bullock, Jr. *Providence*  
Ph.B. (*Brown University*) 1896; A.M. 1897. Political Science, Romance Languages, English. Registered candidate for Ph.D.
- John Wymond Miller Bunker *Newton Center, Mass.*  
A.B. (*Brown University*) 1909; A.M. 1910. Bacteriology, Biology. Enrolled candidate for Ph.D.
- Philip Burbank *Providence*  
A.B. (*Brown University*) 1909. Chemistry, Mechanical Engineering, Botany, Biology.
- Gertrude Hildreth Campbell *Providence*  
A.B. (*Brown University*) 1911. English, Philosophy, Greek. Enrolled candidate for A.M.
- Edith Marie Linnéa Carlborg *Providence*  
A.B. (*Brown University*) 1911. Education. Registered candidate for A.M.
- Robert Gamble Caswell *Wakefield*  
Ph.B. (*Brown University*) 1911. Chemistry, Physics, Mathematics. Enrolled candidate for M.S. Registered candidate for Ph.D.
- Robert Foster Chambers *Providence*  
Ph.B. (*Brown University*) 1909; M.S. 1910. Chemistry, Bacteriology. Enrolled candidate for Ph.D.
- Millie Dimond Church *Bristol*  
Ph.B. (*Brown University*) 1905. English, Education. Registered candidate for A.M.
- Mary Elizabeth Collett *Atchison, Kan.*  
A.B. (*Wellesley College*) 1910; A.M. (*University of Pennsylvania*) 1911. Biology, Psychology, Chemistry. Registered candidate for Ph.D.
- Florence Alice Crossley *Providence*  
A.B. (*Brown University*) 1910. Education, English, German. Enrolled candidate for A.M.

- Emma Henrietta Dahlgren *Attleboro, Mass.*  
A.B. (*Brown University*) 1911. Education, English. Enrolled candidate for A.M.
- Walter William Deckard *Arlington*  
B.S. (*Rio Grande College*) 1893; A.B., B.D. (*Hillsdale College*) 1899; A.M. (*Brown University*) 1905. Political and Social Science, Philosophy. Enrolled candidate for Ph.D.
- Lydia Theodora Dobler *Providence*  
A.B. (*Brown University*) 1910. German. Registered candidate for A.M. *in absentia*.
- Hal Roscoe Eaton *Attleboro, Mass.*  
A.B. (*Bates College*) 1896. Education. Registered candidate for A.M.
- Helen Emerson *Providence*  
A.B. (*Bryn Mawr College*) 1911. Physics. Registered candidate for A.M.
- Raymond Edward Fenner *Providence*  
Ph.B. (*Brown University*) 1910. Education, French, Social Science, Philosophy. Enrolled candidate for A.M.
- Orrin Robinson Ferry *Whitinsville, Mass.*  
English, German, Education. Enrolled candidate for A.M.
- Arline Field *Providence*  
Ph.B. (*Brown University*) 1911. Social Science. Enrolled candidate for A.M.
- Charles Edward Fisher *Providence*  
A.B. (*St. Lawrence University*) 1898. Mathematics, Education. Enrolled candidate for A.M.
- John Howard Forrist *Providence*  
Ph.B. (*Brown University*) 1911. Social and Political Science, Education. Enrolled candidate for A.M.
- Margaret Ames Fuller *Providence*  
A.B. (*Wellesley College*) 1911. English, German, Romance Languages. Registered candidate for A.M.
- Helen Emilie Gindele *Pawtucket*  
A.B. (*Brown University*) 1910. German, Biblical Literature, Greek. Enrolled candidate for A.M.
- Irma Alida Gyllenberg *Providence*  
A.B. (*Brown University*) 1909. Education, German, Art. Enrolled candidate for A.M.
- James Alexander Hall *Providence*  
A.B. (*Brown University*) 1908; B.S. 1910. Electrical Engineering, Chemistry. Registered candidate for M.S.
- Mildred Annie Hatch *Riverside*  
A.B. (*Brown University*) 1910. Social Science, English. Registered candidate for A.M.
- Samuel Lee Haworth *Fall River, Mass.*  
Ph.B. (*Chattanooga University*) 1887. Biblical Literature, History. Registered candidate for A.M.
- Walter Brooks Henderson *St. Ann, Jamaica*  
Ph.B. (*Brown University*) 1910. English, Philosophy. Enrolled candidate for A.M.
- Henry Horace Hibbs, Jr. *Murfreesboro, Tenn.*  
A.B. (*Williamsburg Institute*) 1908; A.B. (*Brown University*) 1910; A.M. 1911. Social and Political Science. Registered candidate for Ph.D.
- Norman Edward Holt *Providence*  
A.B. (*Brown University*) 1910; M.S. 1911. Chemistry, Physics, Mathematics. Registered candidate for Ph.D.
- Judith Barber Hopkins *Putnam, Ct.*  
A.B. (*Brown University*) 1906. Social Science. Registered candidate for A.M.



- Oliver Chace Horsman *Williamsport, Pa.*  
A.B. (*Brown University*) 1899; B.D. (*Crozer Theological Seminary*) 1903. Social Science.  
Registered candidate for A.M. *in absentia*.
- Howard Greenough Hubbard *Providence*  
Ph.B. (*Brown University*) 1911. Biology. Enrolled candidate for M.S.
- Frederic Marshall Jencks *West Barrington*  
Ph.B. (*Brown University*) 1911. Biblical Literature, History, Education. Enrolled candidate for A.M.
- Harold Marshall Jones *Pawtucket*  
A.B. (*Harvard University*) 1904. Physics, Mathematics. Registered candidate for A.M.
- Bernard Aloysius Keenan *Pawtucket*  
A.B. (*Brown University*) 1909; A.M. 1909. German. Registered candidate for Ph.D.
- Archibald Collins Ladner *Springfield, Mass.*  
Education, Mathematics, Physics. Enrolled candidate for A.M.
- Frank Edwin Lakey *Allston, Mass.*  
A.B. (*Brown University*) 1894; A.M. 1900. Social Science, Political Science, Education.  
Enrolled candidate for Ph.D.
- John Leacher *Cornwall, England*  
A.B. (*Hamlin*) 1901; B.D. (*Seabury*) 1904; B.D. (*Episcopal Divinity School, Cambridge*) 1909. Social Science, Philosophy. Registered candidate for A.M.
- Royal Willis Leith *Lowell, Mass.*  
Education, History, Romance Languages. Enrolled candidate for A.M.
- Herbert Collins Long *Denver, Col.*  
A.B. (*William Jewell College*) 1910. Greek, English, Biblical Literature. Enrolled candidate for A.M.
- John Joseph Long *Woonsocket*  
Ph.B. (*Yale University*) 1907. Mechanical Engineering, Civil Engineering, Electrical Engineering. Registered candidate for M.S.
- Charles Everett McCoy *Smethport, Pa.*  
A.B. (*Cornell University*) 1906. Biblical Literature. Registered candidate for A.M.
- Roy Lawson McLaughlin *Providence*  
A.B. (*St. Mary's Seminary*) 1910. Philosophy, Education. Enrolled candidate for A.M.
- Audrey Mallett *Providence*  
A.B. (*Smith College*) 1911. Biology. Enrolled candidate for A.M.
- Charles Ambrose Malloy *Lambertville, N. J.*  
Greek, Latin, History. Enrolled candidate for A.M.
- Grace Marchant *Cumberland Hill*  
A.B. (*Boston University*) 1893. Education, Greek, Latin. Enrolled candidate for A.M.
- Mark Mohler *Los Angeles, Cal.*  
Ph.B. (*Brown University*) 1911. Biblical Literature, Philosophy. Enrolled candidate for A.M.
- Fred Atkins Moore *Attleboro, Mass.*  
A.B. (*Tufts College*) 1904; S.T.B. 1906. Social Science. Registered candidate for A.M.
- Margaret Julia Morgan *Providence*  
A.B. (*Brown University*) 1909. Romance Languages. Registered candidate for A.M.
- Courtland Sawin Mudge *Providence*  
Ph.B. (*Brown University*) 1911. Bacteriology, Physics, Mathematics. Enrolled candidate for A.M. Registered candidate for Ph.D.
- James Roberts Decevi Oldham *East Providence*  
A.B. (*Brown University*) 1897. Education, History. Registered candidate for A.M.

- Ernest Trowbridge Paine *Providence*  
A.B. (*Brown University*) 1901; A.M. 1903. Philosophy. Registered candidate for Ph.D.
- Artley Beeber Parson *Providence*  
A.B. (*Harvard University*) 1903. Biblical Literature, Philosophy. Registered candidate for A.M.
- Alice Manchester Potter *Providence*  
A.B. (*Brown University*) 1908. History, Education. Registered candidate for A.M.
- John Milburn Price *Benton, Ky.*  
A.B. (*Baylor University*) 1911. Biblical Literature, Social Science. Enrolled candidate for A.M.
- Harriet Davis Proctor *Northboro, Mass.*  
A.B. (*Bates College*) 1900. German. Registered candidate for A.M.
- Royal Paul Richardson *Dighton, Mass.*  
A.B. (*Brown University*) 1911. Education, Physics. Enrolled candidate for A.M.
- Lou Roberts *Bristol, Ct.*  
A.B. (*Wellesley College*) 1911. Education. Registered candidate for A.M.
- George Henry Robinson *Leviston, Me.*  
A.B. (*Bates College*) 1911. Biology, Botany. Enrolled candidate for A.M.
- Roger Sherman Robinson *Laconia, N. H.*  
A.B. (*Brown University*) 1911. Education. Registered candidate for A.M.
- Sarah Gridley Ross *Cortland, N. Y.*  
A.B. (*Brown University*) 1905. English, Biblical Literature. Registered candidate for A.M.
- Lester Angell Round *Clayville*  
A.B. (*Brown University*) 1910; A.M. 1911. Bacteriology. Registered candidate for Ph.D.
- Laura Richards Sherman *Providence*  
A.B. (*Brown University*) 1906. Education. Registered candidate for A.M.
- John Frederick Sievers *Marion, Kan.*  
A.B. (*University of Missouri*) 1908; B.S. 1908; A.M. (*Harvard University*) 1910. German.
- Claris Edwin Silcox *Toronto, Canada*  
A.B. (*University of Toronto*) 1909. Biblical Literature, English, Social Science, Philosophy. Enrolled candidate for A.M.
- George Hathorn Smith *Meredith, N. H.*  
A.B. (*Bates College*) 1909; A.M. (*Brown University*) 1910. Bacteriology, Physiology. Enrolled candidate for Ph.D.
- Luther Thomas Smith *Hardwick, Vt.*  
A.B. (*University of Vermont*) 1910. Latin. Registered candidate for A.M.
- Walter Edward Sullivan *Houlton, Me.*  
A.B. (*Bates College*) 1907; A.M. (*Brown University*) 1909. Zoölogy, Bacteriology. Enrolled candidate for Ph.D.
- Harold Avery Swaffield *Lawrence, Mass.*  
Ph.B. (*Brown University*) 1910; A.M. 1911. Bacteriology, Physiology. Registered candidate for Ph.D.
- Albert Whitman Sweet *Providence*  
Ph.B. (*Brown University*) 1911. Biology, Chemistry, Botany. Enrolled candidate for A.M.
- Augustus Taber Swift *Providence*  
A.B. (*Brown University*) 1889; A.M. 1890; Ph.D. 1896. Latin, Social Science.
- Elizabeth Dexter Thacher *Pawtucket*  
A.B. (*Brown University*) 1911. Education, Latin. Enrolled candidate for A.M.

- Edward Lincoln Dwight Turner *Mansfield, Mass.*  
M.D. (*Massachusetts College of Physicians and Surgeons*) 1904; Ph.B. (*Central University*) 1906. Education, Philosophy. Enrolled candidate for A.M.
- George Franklin Weston, Jr. *Providence*  
Ph.B. (*Brown University*) 1909. Psychology, Education. Enrolled candidate for A.M.
- Mildred Corinne Williams *Providence*  
A.B. (*Brown University*) 1910. Latin, French, History, Philosophy. Enrolled candidate for A.M.
- Walter Allen Young *Providence*  
Ph.B. (*Brown University*) 1891. Education. Registered candidate for A.M.

## SENIORS: CLASS OF 1912

NAME	RESIDENCE
Edward August Adams	<i>Fort Dodge, Ia.</i>
Ryland Benjamin Andrews	<i>Leominster, Mass.</i>
Charles Fulda Archambault	<i>Arctic</i>
Clarence Edwin Ayres	<i>Westfield, Mass.</i>
Frank Clifford Barrows, Jr.	<i>New Bedford, Mass.</i>
James Henry Beattie	<i>Brunswick, Vt.</i>
Kenly Smith Bell	<i>East Orange, N. J.</i>
Edgar Paul Bengert	<i>Cleveland, Ohio</i>
Leon Henry Beytes	<i>Plymouth, Mass.</i>
Zue Sun Bien	<i>Shanghai, China</i>
Preble Wilson Blake	<i>Amesbury, Mass.</i>
Stuart Blake	<i>Lonsdale</i>
Eastwood Howard Boardman	<i>Central Falls</i>
Daniel Lucius Brown	<i>Norwich, Ct.</i>
Harry Gilbert Brown	<i>Providence</i>
John Watson Brown	<i>Providence</i>
Arthur Francis Buddington	<i>West Mystic, Ct.</i>
Frederick Burgess, Jr.	<i>Garden City, N. Y.</i>
George Sargent Burgess	<i>Portland, Me.</i>
Warren Randolph Burgess	<i>Providence</i>
Carl Edmond Burnham	<i>Pawtucket</i>
Hudson Coe Burr	<i>Plainfield, N. J.</i>
Leroy Francis Burroughs	<i>Pawtucket</i>
Edgar Gibson Buzzell	<i>Chicago, Ill.</i>
Ralph Harold Chadwick	<i>Hillsboro, N. H.</i>
Adolph Odin Christianson	<i>Boston, Mass.</i>
Alfred Samuel Cloues	<i>Warner, N. H.</i>
Antonio Colas	<i>Havana, Cuba</i>
Sheldon Chalkley Collins	<i>Great Barrington, Mass.</i>
Henry Conyers	<i>Arlington</i>
Joseph Harrison Conzelman	<i>Bristol, Ct.</i>

NAME	RESIDENCE
Lloyd Roswell Cummings	<i>Bradford, N. H.</i>
William Walter Cummings	<i>Providence</i>
Ernest Merrill Daland	<i>Wakefield, Mass.</i>
Wilbur Stone Deming	<i>Sharon, Mass.</i>
Herbert Knight Dennis	<i>Meadville, Pa.</i>
Robert Cloutman Dexter	<i>Forest Hills, Mass.</i>
William Hovey Dinkins	<i>Selma, Ala.</i>
Lionel Victor Domin	<i>Providence</i>
Daniel Gerald Donovan	<i>Providence</i>
Ralph Sherwin Drury	<i>Fitchburg, Mass.</i>
Adelbert Charles Eastburn	<i>Yonkers, N. Y.</i>
James Cornelius Elms, Jr.	<i>East Orange, N. J.</i>
Walter Johnson Emmons	<i>Arlington</i>
Theodore Bryant Farnsworth	<i>Providence</i>
Orrin Robinson Ferry	<i>Whitinsville, Mass.</i>
Thomas Lester Fletcher	<i>Chardon, Ohio</i>
Paul Hart Francis	<i>Providence</i>
Clarence Frank Gifford	<i>Danielson, Ct.</i>
John Joseph Gilbert	<i>Woonsocket</i>
Willard Fremont Gordon, Jr.	<i>Hermanville, Miss.</i>
Matthew Gormly, Jr.	<i>Providence</i>
Abraham Harry Gretsches	<i>New York, N. Y.</i>
Joseph Dydime Guillemette	<i>Pawtucket</i>
Edwin Rogers Handy	<i>Manville</i>
Raymond Preston Hawes	<i>Riverside</i>
Hoey Hennessy	<i>Brooklyn, N. Y.</i>
Rodney Williams Hewitt	<i>Lebanon, Ct.</i>
Wright David Heydon	<i>Centerville</i>
Edward Lapham Hill	<i>East Providence</i>
Clifford Dean Hindle	<i>Central Falls</i>
Preston Hart Hood	<i>Fall River, Mass.</i>
Karl Humphrey	<i>Providence</i>
Ralph Gibney Hurlin	<i>Antrim, N. H.</i>
Wellington LeRoy Jencks	<i>Providence</i>
Harry Muse Jones	<i>McKeesport, Pa.</i>
Howard Prann Jones	<i>Snfield, Ct.</i>
George Valentine Kendall	<i>St. Louis, Mo.</i>
Lowell Clapp Kendrick	<i>Hempstead, N. Y.</i>
Harry Willey Kenney	<i>Arlington</i>
Charles Roland Klebes	<i>West Coxsackie, N. Y.</i>
Archibald Collins Ladner	<i>Springfield, Mass.</i>
George Woodward Langdon	<i>Newburyport, Mass.</i>
Royal Willis Leith	<i>Lowell, Mass.</i>

NAME	RESIDENCE
Jerome Francis Joseph McGehearty	<i>Providence</i>
John Terence Campbell McGuire	<i>Fall River, Mass.</i>
John Francis McLaughlin	<i>Providence</i>
Howard Gove MacMillan	<i>Mapleville</i>
Dennis Robert Mahoney	<i>Newton, Mass.</i>
Charles Ambrose Malloy	<i>Lambertville, N. J.</i>
Wiley Hammond Marble	<i>Worcester, Mass.</i>
Romeo Raoul Martel	<i>Pawtucket</i>
Robert James Yorkston Meckel	<i>St. Louis, Mo.</i>
Francis Everett Miles	<i>Cambridge, Mass.</i>
Clarence Walker Miller	<i>Pawtucket</i>
Everett Howe Miller	<i>South Hadley Falls, Mass.</i>
Samuel Lyman Mitchell	<i>Segundo, Col.</i>
Frederick Leo Mulcahy	<i>Lawrence, Mass.</i>
Nicholas Van Slyck Mumford	<i>Providence</i>
Kenneth Leland Nash	<i>South Weymouth, Mass.</i>
Samson Nathanson	<i>Central Falls</i>
Walter Chadwick Nelson	<i>Fall River, Mass.</i>
Arthur Franklin Newell	<i>Boston, Mass.</i>
Fred Blanchard Oakes	<i>Providence</i>
Francis Dyer O'Connor	<i>Portland, Me.</i>
Carlton Hall Parker	<i>North Attleboro, Mass.</i>
Edward Bates Peck	<i>Spencer, Mass.</i>
Wyman Pendleton	<i>Youngstown, Ohio</i>
Earl Philo Perkins	<i>Providence</i>
Fred Clarence Perry	<i>Brockton, Mass.</i>
William Lester Phillips	<i>Auburn</i>
Mellen Howard Pingree	<i>Auburn, Me.</i>
Milledge Moses Purdy	<i>Wilton, N. H.</i>
Wilbur Bertram Purvis	<i>Norwich, Ct.</i>
Frederick George Rawlings	<i>Providence</i>
George Anton Repko	<i>New York, N. Y.</i>
James Vincent Ricci	<i>Providence</i>
Milton Elmer Roberts	<i>Somersworth, N. H.</i>
Walter Colburn Robertson	<i>Warwick</i>
William Henderson Robertson	<i>Lonsdale</i>
Warren Root	<i>Providence</i>
Edwin Maurice Rose	<i>Providence</i>
Maurice Rosen	<i>Taunton, Mass.</i>
John Harvey Rowland	<i>Shelburne Falls, Mass.</i>
Albert Curtis Ruger	<i>Providence</i>
Harold Preston Salisbury	<i>Providence</i>
William Frederick Scholze, Jr.	<i>Saylesville</i>

NAME	RESIDENCE
Frederick William Seagrave	<i>Slatersville</i>
Harry George Seidel	<i>Fitchburg, Mass.</i>
Alan Arthur Slade	<i>Arlington, N. J.</i>
Harold Everett Smiley	<i>Providence</i>
Irving Russell Smith	<i>Arlington, N. J.</i>
Leon Edward Smith	<i>Block Island</i>
George Herbert Spencer	<i>East Greenwich</i>
John Herschel Spindler	<i>Quincy, Ill.</i>
William Earl Sprackling	<i>Cleveland, Ohio</i>
Herbert Winter Stanley	<i>Plymouth, N. H.</i>
William Leroy Stidger	<i>East Greenwich</i>
Henry Jennison Blakeley Stitt	<i>Saxton's River, Vt.</i>
Yuen Fong Ralph Sun	<i>Shanghai, China</i>
Harry Melvin Sutton	<i>Keene, N. H.</i>
Kenneth James Tanner	<i>Providence</i>
Frederick Leonard Tedford	<i>North Stoughton, Mass.</i>
Ernest Albert Tewksbury	<i>Middlefield, Ct.</i>
John Von der Lieth	<i>Hoboken, N. J.</i>
Ferdinando Votta	<i>Providence</i>
Edward Emory Warner	<i>West Fitchburg, Mass.</i>
William Andrew Weidmann	<i>Arlington</i>
George Bennett Weston	<i>Wollaston, Mass.</i>
Howard Carlton White	<i>Providence</i>
Allen Burnett Williams	<i>Riverside</i>
John Henry Williams	<i>North Adams, Mass.</i>
Alfred Howard Williamson	<i>Providence</i>
Robert Henry Wills	<i>Rochester, Mass.</i>
Richard Bartley Wilson	<i>Youngstown, Ohio</i>
John Tracey Winterich	<i>Providence</i>
Herbert Edward Wolfe	<i>West Mystic, Ct.</i>
Rhodes Walter Zallee	<i>St. Louis, Mo.</i>

## JUNIORS: CLASS OF 1913

Charles Harlan Abbott	<i>Antrim, N. H.</i>
Preston Franklin Arnold	<i>Touisset, Mass.</i>
Samuel Tomlinson Arnold	<i>Fall River, Mass.</i>
Simon Louie Aron	<i>Providence</i>
Russell Gilman Ashbaugh	<i>Youngstown, Ohio</i>
William Emerson Bailey	<i>Montpelier, Vt.</i>
John Raymond Bair	<i>Canton, Ohio</i>
Howard Bates Baker	<i>Providence</i>
Herbert Clarence Banks	<i>Fredonia, N. Y.</i>

NAME	RESIDENCE
Walter Jason Bass	<i>Hyde Park, Mass.</i>
Raymond James Bennell	<i>Morristown, N. J.</i>
Frank Carleton Blake	<i>Providence</i>
Earle Henry Blanchard	<i>Readsboro, Vt.</i>
William Winthrop Blodgett	<i>Pawtucket</i>
Charles Harold Blomberg	<i>Brooklyn, N. Y.</i>
George Boas	<i>Providence</i>
Leighton Teeterick Bohl	<i>Edgewood</i>
Edward Luther Brackett	<i>Boston, Mass.</i>
Harry Chamberlain Brown	<i>Marblehead, Mass.</i>
Marmaduke Cope Buffum	<i>Newport</i>
Ralph Everett Burnham	<i>Central Falls</i>
Joseph Knowles Burwell	<i>Providence</i>
Leon Hartshorn Carr	<i>Bradford, N. H.</i>
James Russell Case	<i>South Acton, Mass.</i>
John Casey, Jr.	<i>Providence</i>
Richard Vance Coburn	<i>Manchester, N. H.</i>
Porter Durant Collins	<i>Guilford, N. H.</i>
Raymond Carpenter Colwell	<i>Olneyville</i>
Joseph Edward Cook	<i>Uxbridge, Mass.</i>
Frederick Eames Cooper	<i>Providence</i>
Everett Thomas Cripps	<i>Providence</i>
Lawton Vincent Crocker	<i>Chester, Vt.</i>
George Marsden Crowther	<i>Pawtucket</i>
Ralph Brinckerhoff Crum	<i>Poughkeepsie, N. Y.</i>
John Houston Cushman	<i>Guilford, Me.</i>
Francis Perry Davis	<i>Providence</i>
William Learned Dealey	<i>Providence</i>
Earle Raymond Delano	<i>Newburyport, Mass.</i>
William Earl Dodge	<i>Block Island</i>
Harold Faunce Dumbleton	<i>Springfield, Mass.</i>
Elisha Chester Durfee	<i>Arlington</i>
William Raymond Eastwood	<i>Providence</i>
Russell Watts Field	<i>Barrington</i>
Frederic Robert Gaiser	<i>Meriden, Ct.</i>
Karl Dana Gardner	<i>Swansea, Mass.</i>
Walter Hibberd Garrett	<i>Chadds Ford, Pa.</i>
Victor Carl Gelb	<i>Providence</i>
Frank Bradford Gibbs	<i>West Barrington</i>
Jeffrey Solon Goldberg	<i>New York, N. Y.</i>
Adrian Gordon Gould	<i>Youngstown, Ohio</i>
Harold Alden Grout	<i>East Bridgewater, Mass.</i>
Frederic Howland Guild	<i>Providence</i>

NAME	RESIDENCE
Clifford Aylward Hahn	<i>Brooklyn, N. Y.</i>
Kenneth Standish Hall	<i>Worcester, Mass.</i>
Benjamin Malcolm Harris	<i>Bradford, N. H.</i>
James Eddy Harris	<i>Providence</i>
William Russell Harris	<i>Dedham, Mass.</i>
George Nathan Hazard	<i>Narragansett Pier</i>
Edwin Gustav Hempel	<i>Providence</i>
Arthur Henry Higgins	<i>Charleston, Me.</i>
Leon Clifford High	<i>Providence</i>
Arthur Whitney Howe, Jr.	<i>Philadelphia, Pa.</i>
William Mason Howe	<i>Seekonk, Mass.</i>
Norman Bigelow Hull	<i>Brooklyn, N. Y.</i>
Abraham Samuel Isaacson	<i>Bristol</i>
Cedric Freeman Joslin	<i>Portland, Me.</i>
Karl Henry Koopman	<i>Providence</i>
Oliver Moyer Kratz	<i>Philadelphia, Pa.</i>
Daniel Harrison Kulp	<i>Pottstown, Pa.</i>
William Dickson Lamond	<i>Providence</i>
Duncan Langdon	<i>Newburyport, Mass.</i>
Allan Lincoln Langley	<i>Newport</i>
Alfred Bunyan Lemon	<i>Manchester, N. H.</i>
Ira Lloyd Letts	<i>Moravia, N. Y.</i>
Leroy Everett Loxley	<i>Providence</i>
Joseph Anthony McCaull	<i>Providence</i>
Benjamin Murrie McLyman	<i>Newport</i>
Andrew Hamilton McPhail	<i>North Adams, Mass.</i>
Daniel Lawrence Mahoney	<i>Newton, Mass.</i>
Albert Pray Martin	<i>Pawtucket</i>
Frederick Stiles Martin	<i>Allentown, Pa.</i>
George Tucker Metcalf	<i>Wickford</i>
Walter Percy Misch	<i>Providence</i>
Carleton Doty Morse	<i>New Bedford, Mass.</i>
Randolph Morse	<i>Brookline, Mass.</i>
Harold Winthrop Munro	<i>Providence</i>
Edward Andrew Cushman Murphy	<i>Mount Sinai, N. Y.</i>
Louis Israel Newman	<i>Providence</i>
Herbert Farwell Osteyee	<i>Ausable Forks, N. Y.</i>
Otto Carl Pahline	<i>East Providence</i>
Cecil Carlton Parker	<i>Hyde Park, N. Y.</i>
Sylvanus Henry Hill Parsons	<i>Albany, N. Y.</i>
Clarence Horace Philbrick	<i>Providence</i>
Jackson Cole Phillips	<i>Providence</i>
William James Potter	<i>Providence</i>



NAME	RESIDENCE
James Henry Readio, Jr.	<i>Pawtucket</i>
Horace Ray Redington	<i>Amherst, Ohio</i>
William Joseph Reed	<i>North Adams, Mass.</i>
Joseph Francis Reilly	<i>Brockton, Mass.</i>
Kenneth Stillman Rice	<i>Gloucester, Mass.</i>
Charles Herbert Ricker	<i>Providence</i>
Thomas Howarth Roberts	<i>Providence</i>
Benjamin Israel Robinson	<i>Providence</i>
Richard Dodson Robinson	<i>Baltimore, Md.</i>
Herbert Duncan Rollason	<i>Cambridge, England</i>
Herbert Mortimer Rosenberg	<i>New York, N. Y.</i>
John Evans Rouse	<i>Denver, Col.</i>
Thomas Clark Shedd	<i>East Providence</i>
Marshall Kingston Sheldon	<i>Pawtucket</i>
Carleton Fenner Sims	<i>Warwick Neck</i>
Leonard Walter Smith	<i>Pawtucket</i>
Walter Henry Snell	<i>Brockton, Mass.</i>
Charles Raymond Somers	<i>Mansfield, Mass.</i>
John Kent Starkweather	<i>Denver, Col.</i>
Clifford John Stevens	<i>Brooks, Me.</i>
William Matthew Sullivan	<i>Fall River, Mass.</i>
Reynolds Sweetland	<i>Providence</i>
Norman Stephen Taber	<i>Providence</i>
Louis Clifford Taylor, Jr.	<i>Trenton, N. J.</i>
Lemuel Halsted Thompson	<i>Morristown, N. J.</i>
Robert Stanley Thomson	<i>Pawtucket</i>
Harold Clifton Tooker	<i>Larchmont, N. Y.</i>
Earl Whalley Tucker	<i>Allentown</i>
Payson Waite Tucker	<i>Narragansett Pier</i>
Charles Waterman Walker	<i>Meshanticut</i>
John Tempest Walker, Jr.	<i>Providence</i>
Edward Strawn Walton	<i>Youngstown, Ohio</i>
Elisha Carpenter Wattles	<i>Dorchester, Mass.</i>
Winter Arnold White	<i>Groton, Ct.</i>
Willis Carey Wilber	<i>Buffalo, N. Y.</i>
Frederick Henry Wilke	<i>Morristown, N. J.</i>
Frederick Crawford Williams	<i>Pawtucket</i>
James Taylor Wilson	<i>Youngstown, Ohio</i>
Horace Whipple Woodberry, Jr.	<i>Beverly, Mass.</i>
Maynard Earle Wright	<i>Montpelier, Vt.</i>

## SOPHOMORES: CLASS OF 1914

NAME	RESIDENCE
Frank Reuben Abbott	<i>Salem, Mass.</i>
Vintson Augustus Ackley	<i>Mystic, Ct.</i>
David Isaac Adelman	<i>Providence</i>
James Gelston Affleck, Jr.	<i>Yonkers, N. Y.</i>
Lester Johnson Ainsworth	<i>Attleboro, Mass.</i>
James Grant Anderson	<i>Andover, Mass.</i>
William Calvin Andrews	<i>Middleboro, Mass.</i>
Lewis Randall Ashton	<i>Lawrence, Mass.</i>
Charles Louis Bagnall	<i>North Attleboro, Mass.</i>
Arthur Elliot Bartlett	<i>Boston, Mass.</i>
Albert Edwin Beachen	<i>Pawtucket</i>
Stephen Sibley Bean	<i>Woburn, Mass.</i>
Henry Lyman Parsons Beekwith	<i>Providence</i>
Edward Wood Berriman	<i>Chicago, Ill.</i>
Charles Everett Blackway	<i>Fall River, Mass.</i>
Irving Thayer Boardman	<i>Providence</i>
Raymond Franklin Borden	<i>South Portsmouth</i>
Alfred Hugh Oliver Boudreau	<i>Providence</i>
Walter Eugene Boyd	<i>Manchester, N. H.</i>
Charles Edward Brady	<i>Providence</i>
Francis James Brady	<i>Providence</i>
Earl Kingsley Brown	<i>Providence</i>
Howard Adams Brown	<i>Brattleboro, Vt.</i>
Watson Frederick Buchler	<i>Newark, N. J.</i>
Elliot Towle Bugbee	<i>North Attleboro, Mass.</i>
Walter Russell Burnham	<i>Central Falls</i>
Edward Raymond Campbell	<i>Putney, Vt.</i>
Hubert Hayward Champney	<i>Taunton, Mass.</i>
William Albert Chappell	<i>Ashaway</i>
Ernest Rexford Cleaveland	<i>Providence</i>
King Collins	<i>Auburn</i>
Austin Norcross Cook	<i>Providence</i>
Edwin Pulver Cook	<i>Moravia, N. Y.</i>
Frank Merrill Cram	<i>Lakeport, N. H.</i>
James Lawrence Cummings	<i>Fall River, Mass.</i>
Harold Leavitt Cushing	<i>Seekonk, Mass.</i>
Clarence Adelbert Davis	<i>East Killingly, Ct.</i>
Walter Deady, Jr.	<i>New York, N. Y.</i>
Donald Dike	<i>Melrose, Mass.</i>
Harry Edward Dow	<i>Lawrence, Mass.</i>
John Albert Droege, Jr.	<i>Providence</i>

NAME	RESIDENCE
Peter Francis Dugan	<i>Newburyport, Mass.</i>
Eugene Ross Dukette	<i>Plattsburg, N. Y.</i>
Arthur Dudley Durgin	<i>Hopedale, Mass.</i>
Frederick Willard Easton, Jr.	<i>Pawtucket</i>
Lester David Ehmke	<i>Silver Creek, N. Y.</i>
Edward Irving Everett	<i>Franklin, Mass.</i>
Joseph Hollister Farnham	<i>Providence</i>
Abraham Feitelberg	<i>Fall River, Mass.</i>
Philip William Ferguson	<i>Lyndon Centre, Vt.</i>
Chester Arthur Files	<i>White Rock, Me.</i>
Louis Matthew Fine	<i>Providence</i>
Carl Winfield Firebaugh	<i>New York, N. Y.</i>
William Norman Fisher	<i>Gloucester, Mass.</i>
Frank Fiske	<i>Chepachet</i>
Herbert Elliott Foote	<i>Pawtucket</i>
Marion Kenneth Forward	<i>Greeley, Col.</i>
Silas William Foss	<i>Laconia, N. H.</i>
Alexander Andrew Gardiner	<i>Holyoke, Mass.</i>
James Vincent Giblin	<i>Fall River, Mass.</i>
George Sidney Goodspeed	<i>Oak Lawn</i>
Jonathan Pyott Hadfield	<i>Edgewood</i>
Russell Wyman Hall	<i>Mansfield, Mass.</i>
Earl Whittemore Harrington	<i>Providence</i>
Wallace Elmer Harris	<i>Providence</i>
Frederick Rowland Hazard, Jr.	<i>Syracuse, N. Y.</i>
David Edward Henry	<i>Dorchester, Mass.</i>
Paul Palmer Henson	<i>Providence</i>
Gilbert Williams Hodges	<i>Foxboro, Mass.</i>
Arnold Smith Hoffman	<i>Barrington</i>
Robert Stow Holding	<i>Lewiston, Me.</i>
Edward Joseph Horrigan	<i>Providence</i>
Herbert Elliott Ingalls	<i>Lynn, Mass.</i>
Reber Nettleton Johnson	<i>Chicago, Ill.</i>
Thomas Leo Keily	<i>Providence</i>
Irving Angell King	<i>Providence</i>
Chester Lewis Knowles	<i>Narragansett Pier</i>
Wilder Malcolm Lahy	<i>New York, N. Y.</i>
Jean Martial Legris	<i>Arctic</i>
Fred Lynn Loucks	<i>Le Roy, N. Y.</i>
Ralph Baker Low	<i>Essex, Mass.</i>
William James Lowrie	<i>Brooklyn, N. Y.</i>
Abraham Lubet	<i>Providence</i>
Elmer George MacDowell	<i>Linwood, N. Y.</i>

NAME	RESIDENCE
Frank Edward McDuff	<i>Pawtucket</i>
James Joseph McGovern	<i>Providence</i>
Raymond C. McKay	<i>Youngstown, Ohio</i>
Edward Aloysius McLaughlin	<i>Providence</i>
Isidor Marcus	<i>Providence</i>
Fae Harmon Marvin	<i>Oxford, Mass.</i>
Kenneth Oliver Mason	<i>Pawtucket</i>
Melville Carlos Mason	<i>Rupert, Vt.</i>
Percy Davol Meader	<i>Providence</i>
Herbert Earl Morgan Medbury	<i>Providence</i>
John Tucker Metcalf	<i>Wickford</i>
Lawrence Carl Thompson Miller	<i>Taunton, Mass.</i>
William Anthony Moffett	<i>Schenectady, N. Y.</i>
Nahum Morrill	<i>Chicago, Ill.</i>
Halsey Reginald Nash	<i>South Weymouth, Mass.</i>
William Baker Noyes	<i>Beaver Dam, Wis.</i>
Richard James O'Brien	<i>Springfield, Mass.</i>
Edmund Selinger Parsons	<i>Providence</i>
Stephen Jefferson Patten	<i>Brooklyn, N. Y.</i>
Constant Yale Peck	<i>Bristol, Ct.</i>
Howard Randolph Perrin	<i>Pawtucket</i>
Wilber John Phillips	<i>Youngstown, Ohio</i>
Reginald Poland	<i>Providence</i>
Francis Whitfield Post	<i>Brockton, Mass.</i>
Raymond Abner Preston	<i>Danielson, Ct.</i>
Albert Weber Protheroe	<i>Port Chester, N. Y.</i>
Alfred Ernest Raia	<i>Providence</i>
Hiram Randall	<i>Morganville, N. Y.</i>
Arthur Forest Ranger	<i>Providence</i>
Clarence Newton Reynolds, Jr.	<i>Pawtucket</i>
Henry Philip Reynolds	<i>Uxbridge, Mass.</i>
Harold Alton Rice	<i>Leominster, Mass.</i>
James Everett Ricker	<i>Providence</i>
Morgan Witter Rogers	<i>Providence</i>
George Emil Ronne	<i>Providence</i>
Stanley James Rowland	<i>Shelburne Falls, Mass.</i>
Harry John Rubin	<i>Providence</i>
Leon Beckwith Savacool	<i>Manchester, N. H.</i>
Melvin Eugene Sawin	<i>Providence</i>
James Ira Shepard	<i>Providence</i>
Cyril Carpenter Smith	<i>Seekonk, Mass.</i>
Henry Robert Smith	<i>Rutland, Mass.</i>
Raymond Leonard Smith	<i>Newark, N. J.</i>

NAME	RESIDENCE
Lyman Jacklin Spalding	<i>New York, N. Y.</i>
John Lovell Sperry	<i>Oak Lawn</i>
Leroy Arnold Spooner	<i>Eden Park</i>
Harold Hardy Sprague	<i>Melrose, Mass.</i>
Walter Hoff Sprague	<i>Pottersville, Mass.</i>
Henry Stanley Stanton	<i>New York, N. Y.</i>
William Francis Tewhill	<i>Florence, Mass.</i>
Luman Tenney Thurber	<i>Bristol</i>
Spencer Albert Townsend	<i>Le Roy, N. Y.</i>
James Joseph Tyrrell	<i>Pawtucket</i>
Eli Morrill Viner	<i>Providence</i>
Cyril Horace Wakefield	<i>Providence</i>
Earl Hammond Walker	<i>Providence</i>
Ward Wetmore	<i>Essex, Mass.</i>
George Bertram Whitmarsh	<i>Providence</i>
Theodore Peters Whittemore	<i>West Roxbury, Mass.</i>
Francis Merrill Willett	<i>Brockton, Mass.</i>
Roger Williams	<i>Providence</i>
Maurice Augustus Wolf	<i>Rochester, N. Y.</i>
Norris Elwin Woodbury	<i>Nashua, N. H.</i>
Charles Lester Woolley	<i>Providence</i>
Sidney Waddington Wray	<i>Providence</i>
Nathan Manchester Wright, Jr.	<i>Providence</i>
Ernest Elwood Yeaton	<i>Chelsea, Me.</i>

## FRESHMEN : CLASS OF 1915

John Blair Abbott	<i>St. Louis, Mo.</i>
Elmer Frank Adams	<i>Haverhill, Mass.</i>
John Alexander	<i>Brooklyn, N. Y.</i>
Edgar Allen	<i>Edgewood</i>
Sewell Woodberry Allison	<i>Attleboro, Mass.</i>
Carl Henry Angell	<i>Providence</i>
Alfred Wyatt Anthony	<i>Lewiston, Me.</i>
Paul Gaspard Archambault	<i>Arctic</i>
Percy Charles Babington	<i>Cranston</i>
John Wadsworth Banks	<i>Princeton, Ky.</i>
Eric Newell Barbour	<i>Rochester, N. Y.</i>
Arthur Earl Barnard	<i>Providence</i>
Lewis Barrington	<i>Washington, D. C.</i>
Ismar Baruch	<i>New London, Ct.</i>
Russell Lowell Bateman	<i>Wilkinsburg, Pa.</i>
William Emmet Beehan	<i>Providence</i>

NAME	RESIDENCE
Ralph Leon Blanchard	<i>Pittsfield, Me.</i>
Harrison Bliss	<i>Providence</i>
George Fremont Bliven	<i>Providence</i>
Royal Buchanan Bongartz	<i>Providence</i>
Earl Allwood Bowen	<i>Providence</i>
Joseph Brown Bowen	<i>Pawtucket</i>
John Hanson Bower	<i>Methuen, Mass.</i>
Francis Chapin Breckenridge	<i>Providence</i>
Wilbur Tobias Breckenridge	<i>Providence</i>
Peirce Hill Brereton	<i>Providence</i>
Harry Danforth Brice	<i>Providence</i>
Frederick Burns	<i>Winthrop, Mass.</i>
Luther Haven Burrill	<i>Hopedale, Mass.</i>
William Russell Burwell	<i>Providence</i>
Leonard Brown Campbell	<i>Providence</i>
John Rudolph Carlson	<i>Roslindale, Mass.</i>
John James Carroll	<i>Taunton, Mass.</i>
Arthur William Cate	<i>Providence</i>
Theodore Chandler	<i>Auburndale, Mass.</i>
Wilfred Warren Chandler	<i>Somerville, Mass.</i>
Byron Edwin Chapman	<i>Broadalbin, N. Y.</i>
Charles Myron Clegg	<i>Youngstown, Ohio</i>
Hezekiah Nelson Conant	<i>Pawtucket</i>
Harold Augustus Cone	<i>New London, Ct.</i>
Roland Edes Copeland	<i>Roxbury, Mass.</i>
Edward John Corcoran	<i>Newport</i>
Clarence Frederic Corp	<i>Providence</i>
Ralph Waldo Cram	<i>Melrose, Mass.</i>
Frank Bennett Crocker	<i>Le Roy, N. Y.</i>
Cecil Merne Putnam Cross	<i>Providence</i>
Minot Jay Crowell	<i>Melrose, Mass.</i>
Percy Raymond Crum	<i>Poughkeepsie, N. Y.</i>
Shirley Everett Culver	<i>Attleboro, Mass.</i>
Paul Oliver Curtis	<i>Dorchester, Mass.</i>
Fred Davis	<i>New York, N. Y.</i>
Horace Allen Davis	<i>Taunton, Mass.</i>
Harvey Gladding Denham	<i>South Attleboro, Mass.</i>
Willis Day Donnan	<i>Le Roy, N. Y.</i>
Henry Forrester Drake	<i>Brooklyn, N. Y.</i>
Norman LeRoy Duncan	<i>Woburn, Mass.</i>
Rufus Albert Dyer	<i>Madison, Me.</i>
MacDonald Edinger	<i>Kingston, N. Y.</i>
Wilmer Hughes Eicke	<i>Narragansett Pier</i>

NAME	RESIDENCE
Ernest Hartwell Emery	<i>North Kingstown</i>
Harry Elmer Emmons, Jr.	<i>Brunswick, Me.</i>
Carl DeWitt Everingham	<i>Suncook, N. H.</i>
Gordon Banham Ewing	<i>Newton Centre, Mass.</i>
Munroe Erskine Fagan	<i>Providence</i>
Eliot Harold Falk	<i>Meriden, Ct.</i>
Shiang Fuan Fay	<i>Tientsin, China</i>
Amatus Edward Feeney	<i>Providence</i>
Franklin Blaine Frost	<i>Tiverton</i>
Raymond Bissett Gallant	<i>Exeter, N. H.</i>
Wallace Lester Gallup	<i>Springfield, Mass.</i>
John Lindley Gammell	<i>Providence</i>
Wallace Allyn Gannon	<i>Newark, N. J.</i>
Fred Walter Glassel	<i>Callicoon, N. Y.</i>
Phillip Paddock Goodwill	<i>Bramwell, W. Va.</i>
Aaron Elmer Gottshall	<i>Bluffton, Ohio</i>
Joseph Gottstein	<i>Seattle, Wash.</i>
Ralph Brown Graham	<i>Lynn, Mass.</i>
Frederick Hartwell Greene	<i>Newton Centre, Mass.</i>
John Hermon Greene, Jr.	<i>Newport</i>
Joseph Irving Greene	<i>Fishkill-on-Hudson, N. Y.</i>
Albert Leonard Grindy	<i>North Adams, Mass.</i>
Clarence James Grinnell	<i>Newport</i>
George Garner Guinness	<i>Providence</i>
Walter Pontius Gunn	<i>Springfield, Mass.</i>
John Russell Haire	<i>Newport</i>
Lawrence Hall	<i>Providence</i>
Herman Nichols Harcourt	<i>Wappingers Falls, N. Y.</i>
John Eugene Hart	<i>Far Hills, N. J.</i>
Morgan Bulkeley Haven	<i>New London, Ct.</i>
Schuyler Victor Hayward	<i>Chicago, Ill.</i>
George Earl Hebner	<i>Le Roy, N. Y.</i>
Loring Spaulding Hemenway	<i>Providence</i>
Clifford Harrison Higgins	<i>Westbrook, Me.</i>
Edward Washington Hill	<i>Belleve, Pa.</i>
Prescott William Hill	<i>Providence</i>
Edward Winslow Hinks	<i>Providence</i>
Victor Howard	<i>Providence</i>
Dana Mortimer Hubbard	<i>Woburn, Mass.</i>
Frederic Johnson Hunt	<i>East Providence</i>
Harley Clifford Hyde	<i>Cranston</i>
John Leslie Jenney	<i>Partucket</i>
George Brinton Johnston	<i>North Hampton, N. H.</i>

NAME	RESIDENCE
Barclay Lincoln Jones	<i>South China, Me.</i>
Robert Wyman Jones	<i>Fair Haven, Vt.</i>
Philip Sturtevant Kellen	<i>Boston, Mass.</i>
John Edward Kelly	<i>Le Roy, N. Y.</i>
Lewis Clifford Kenyon	<i>Providence</i>
Paul Joseph Kingsley	<i>Providence</i>
Harold Clarence Kinne	<i>Pawtucket</i>
Carroll Wilson Knowles	<i>Mamaroneck, N. Y.</i>
Clarence Joseph Lamb	<i>Pawtucket</i>
Howard Langley	<i>Newport</i>
George Henry Anthony La Roe	<i>Providence</i>
Herbert Austin Larrabee	<i>Peabody, Mass.</i>
Carl Franklin Lauer	<i>Reading, Pa.</i>
Leslie Torrence Little	<i>Picture Rocks, Pa.</i>
Tsung Fah Liu	<i>Tientsin, China</i>
Edward Carleton Loud	<i>South Weymouth, Mass.</i>
Earl Francis Luther	<i>East Providence</i>
Harvey Bullinger McCrone	<i>St. Johnsville, N. Y.</i>
Rowland Hazard McLaughlin	<i>Chicago, Ill.</i>
Richard Lambie McLean	<i>Boston, Mass.</i>
Colin Gordon McLeod	<i>Providence</i>
Wallace Merritt McNaught	<i>Dorchester, Mass.</i>
Hugh Martin Mendes	<i>Port of Spain, Trinidad</i>
Arthur Michelini	<i>Reading, Mass.</i>
Fred William Miller	<i>Ivoryton, Ct.</i>
Percival Miller	<i>Providence</i>
Harold Cranston Miner	<i>East Greenwich</i>
Emlyn Vinald Mitchell	<i>Medfield, Mass.</i>
Seth Kimball Mitchell	<i>Bradford, Mass.</i>
Parker Edward Monroe	<i>Providence</i>
Aubrey John Morgan	<i>Providence</i>
Harold Leslie Myers	<i>Morristown, N. J.</i>
Henry Schischker Newcombe	<i>Marlboro, Mass.</i>
Herbert Newell Nicholas	<i>Pawtucket</i>
John Henry Nolan	<i>Newport</i>
Warren Perham Norton	<i>Waymart, Pa.</i>
James Francis O'Donoghue	<i>Lowell, Mass.</i>
Benediet Max Olch	<i>Providence</i>
John Anthony Owen, Jr.	<i>Providence</i>
Lester Curtis Page	<i>Phenix</i>
George Thomas Paine	<i>Warwick</i>
Frank Anthony Parente	<i>Providence</i>
Roy Leon Parker	<i>Providence</i>



NAME	RESIDENCE
John Paton	<i>Lincoln</i>
John Albert Weld Pearce	<i>New Bedford, Mass.</i>
Basil Harrison Perry	<i>Bristol</i>
Charles Stuart Phelps	<i>Rockland, Mass.</i>
Roy Cleveland Phillips	<i>Norwich, Ct.</i>
Whiting Hayden Preston	<i>Providence</i>
Howard Lewis Quimby	<i>South Acton, Mass.</i>
Robert Emmet Quinn	<i>River Point</i>
Holden Remington	<i>New Bedford, Mass.</i>
Robert Schuyler Rhodes	<i>Adams, N. Y.</i>
Adams Thurber Rice	<i>Newton Centre, Mass.</i>
Richard Drury Rice	<i>Lynn, Mass.</i>
William Karl Rice	<i>Adams, N. Y.</i>
George Edward Richardson	<i>Attleboro, Mass.</i>
James Caviness Rickner	<i>Mancos, Col.</i>
Frederick John Rogers	<i>Providence</i>
Samuel Greene Arnold Rogers	<i>West Chester, Pa.</i>
John Samuel Roney	<i>Middletown, Ohio</i>
Ernest Thomas Scattergood	<i>Edgewood</i>
Philip Carl Scherer, Jr.	<i>Brooklyn, N. Y.</i>
David Taylor Shaw	<i>Oberlin, Ohio</i>
William Paine Sheffield, Jr.	<i>Newport</i>
Hugh Bruce Shipley	<i>Washington, D. C.</i>
Morris Siff	<i>St. Louis, Mo.</i>
George Silverman	<i>Providence</i>
William Molus Sistare, Jr.	<i>New London, Ct.</i>
John Joseph Skolnick	<i>New York, N. Y.</i>
Daniel Smith	<i>Moosup, Ct.</i>
Edgar Jonathan Staff	<i>Brockton, Mass.</i>
Richard Boardman Stanley	<i>Plymouth, N. H.</i>
Milton Hammond Stansbury	<i>West Chester, Pa.</i>
Elliot Shippen Staples	<i>Burlington, Vt.</i>
Gregory Harte Starbuck	<i>Gouverneur, N. Y.</i>
Harold St. Clair Starin	<i>Basking Ridge, N. J.</i>
Wallace Gear Stewart	<i>East Orange, N. J.</i>
Roland Lucius Stickney	<i>Manchester, N. H.</i>
Raymond Parkhurst Stickney	<i>Manchester, N. H.</i>
Sherman Merrill Strong	<i>Chicago, Ill.</i>
Edmund James Sullivan	<i>Providence</i>
William Francis Sullivan	<i>Lowell, Mass.</i>
William Francis Sullivan, 2d	<i>Wellesley Hills, Mass.</i>
Adam Andrew Sutcliffe	<i>Pawtucket</i>
Louis Morenci Sweeny	<i>Poughkeepsie, N. Y.</i>

NAME	RESIDENCE
Elias Charles Sydney	<i>Providence</i>
Harold Burton Taft	<i>Uxbridge, Mass.</i>
Harold Murdock Taylor	<i>Meshanticut</i>
Parker Gillespie Tenney	<i>Minneapolis, Minn.</i>
Carl Anthony Terry	<i>Fall River, Mass.</i>
Everett Linscott Thornton	<i>Providence</i>
William Gorham Thurber	<i>Providence</i>
Harold Winthrop Tucker	<i>Providence</i>
George Clark Valentine	<i>Ballston Spa, N. Y.</i>
Homer Emsley Van Derwerken	<i>Middle Granville, N. Y.</i>
Edward Robert Walsh, Jr.	<i>Roslindale, Mass.</i>
George Willis Waterman	<i>Providence</i>
William Randall Waterman	<i>Providence</i>
Harold Earle Watson	<i>Cranston</i>
Ralph Knight Wentworth	<i>Westbrook, Me.</i>
Russell Henry Wentz	<i>Hall, W. Va.</i>
Byron Lillibridge West	<i>Edgewood</i>
Grenville Whitney	<i>Dover, N. H.</i>
William Earle Williams	<i>Blackinton, Mass.</i>
Harold Leslie Wilson	<i>Youngstown, Ohio</i>
Russell Mills Wilson	<i>Providence</i>
Lester Clinton Wing	<i>Fall River, Mass.</i>
Edward Harrison Winsor	<i>Providence</i>
Samuel Henry Workman	<i>Providence</i>

## SPECIAL STUDENTS

Cyrus Gates Allen	<i>Denver, Col.</i>
Frederic Orrville Balcom	<i>Providence</i>
Stanley Mirick Banfield	<i>Worcester, Mass.</i>
Sanford Samuel Burton, Jr.	<i>North Providence</i>
Henry Dewees Cady	<i>Warren</i>
Harry Elms Edwards	<i>Providence</i>
Morton Fletcher Frost	<i>Rumford</i>
Alexander Leo Gendron	<i>North Brookfield, Mass.</i>
Rod Allen Gillis	<i>Providence</i>
Russell Elliott Goff	<i>Providence</i>
Irving Turple Gumb	<i>Lowell, Mass.</i>
Chester Brown Hadley	<i>Providence</i>
Samuel Paris Harris	<i>Providence</i>
Hyman Solomon Jeram	<i>Providence</i>
Charles Augustus Leonard	<i>Hingham, Mass.</i>
Joseph Henry McCormick	<i>Providence</i>

## SPECIAL STUDENTS

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NAME	RESIDENCE
Leon Norman McKenzie	<i>Pawtucket</i>
William Arthur Needham	<i>Providence</i>
Britain McIntyre Paterson	<i>Flint, Mich.</i>
Richard Michel Plummer	<i>Denver, Col.</i>
John William Regan	<i>Fall River, Mass.</i>
Amos Barstow Root	<i>Providence</i>
Robert Godfrey Shaw	<i>Providence</i>
Robert Emmet Simpson, Jr.	<i>Brooklyn, N. Y.</i>
Albert Leonard Slade	<i>Touisset, Mass.</i>
William Martin Tilton	<i>Dalton, Mass.</i>
Lorenze Joseph Vaudreuil	<i>Worcester, Mass.</i>
Robert McDonald Sterling Walker	<i>Providence</i>
Herman Oscar Werner	<i>Providence</i>

# THE WOMEN'S COLLEGE IN BROWN UNIVERSITY

## OFFICERS OF ADMINISTRATION AND INSTRUCTION

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*Professor of Moral and Intellectual Philosophy*

LIDA SHAW KING, A.M., DEAN OF THE WOMEN'S COLLEGE  
*Professor of Classical Literature and Archaeology*

EMMA BRADFORD STANTON, A.M., REGISTRAR OF THE WOMEN'S COLLEGE

JOHN HOWARD APPLETON, A.M., Sc.D.  
*Newport-Rogers Professor of Chemistry*

WILLIAM CAREY POLAND, A.M., Litt.D.  
*Professor of the History of Art and Director of the Museum of Fine Arts*

NATHANIEL FRENCH DAVIS, A.M., LL.D.  
*Professor of Pure Mathematics*

WINSLOW UPTON, A.M., Sc.D.  
*Professor of Astronomy, Director of the Ladd Observatory*

ALBERT GRANGER HARKNESS, A.M., Litt.D.  
*Professor of Roman Literature and History*

† HENRY BRAYTON GARDNER, Ph.D.  
*Professor of Economics*

† COURTNEY LANGDON, A.B.  
*Professor of the Romance Languages and Literatures*

EDMUND BURKE DELABARRE, Ph.D.  
*Professor of Psychology*

JAMES IRVING MANATT, Ph.D., LL.D.  
*Professor of Greek Literature and History*

WALTER COCHRANE BRONSON, A.M., Litt.D.  
*Professor of English Literature*

WALTER GOODNOW EVERETT, Ph.D.  
*Professor of Philosophy and Natural Theology*

† On leave of absence during the academic year 1911-12.

ASA CLINTON CROWELL, PH.D.

*Associate Professor of the Germanic Languages and Literatures*

CARL BARUS, PH.D., LL.D.

*Hazard Professor of Physics*

FRANCIS GREENLEAF ALLINSON, PH.D.

*David Benedict Professor of Classical Philology*

HENRY PARKER MANNING, PH.D.

*Associate Professor of Pure Mathematics*

JAMES QUAYLE DEALEY, PH.D.

*Professor of Social and Political Science*

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*Professor of the Theory and Practice of Education*

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*Professor of Biology*

ALBERT KNIGHT POTTER, A.M.

*Associate Professor of the English Language*

ALBERT BUSHNELL JOHNSON, A.M.

*Associate Professor of the Romance Languages*

ALEXANDER MEIKLEJOHN, PH.D.

*Professor of Logic and Metaphysics*

JOHN FRANCIS GREENE, A.M.

*Assistant Professor of Roman Literature and History*

WILLIAM MACDONALD, PH.D., LL.D.

*George L. Littlefield Professor of American History*

JOHN EMERY BUCHER, PH.D.

*Associate Professor of Organic Chemistry*

HENRY THATCHER FOWLER, PH.D.

*Professor of Biblical Literature and History*

LINDSAY TODD DAMON, A.B.

*Professor of English Literature and Rhetoric*

GEORGE WYLLYS BENEDICT, PH.D.

*Associate Professor of English*

THOMAS CROSBY, A.M.

*Associate Professor of English and Public Speaking*

HENRY BARRETT HUNTINGTON, A.B.

*Associate Professor of English*

CAMILLO VON KLENZE, PH.D.

*Professor of the Germanic Languages and Literatures*

HERBERT EUGENE WALTER, PH.D.

*Assistant Professor of Biology*

ROLAND GEORGE DWIGHT RICHARDSON, PH.D.

*Assistant Professor of Pure Mathematics*

JAMES MARVIN MOTLEY, PH.D.

*Associate Professor of Economics*

CHARLES HERMAN HUNKINS, DR. UNIV. PARIS

*Assistant Professor of French*

RAYMOND CLARE ARCHIBALD, PH.D.

*Assistant Professor of Mathematics*

THEODORE FRELINGHUYSEN COLLIER, PH.D.

*Associate Professor of European History*

HARLAN HARVEY YORK, PH.D.

*Assistant Professor of Botany*

JUSTIN HOMER BACON, A.M.

*Acting Assistant Professor of the Romance Languages*

HAMILTON CRAWFORD MACDOUGALL, MUS.D.

*Lecturer in Music*

ALICE WILSON WILCOX, A.M.

*Instructor in Physiology and Household Economics in the Women's College*

WILLIAM THOMSON HASTINGS, A.M.

*Instructor in English*

STANLEY BATES HARKNESS, A.B.

*Instructor in English*

GILBERT CHINARD, B. ès L., L. ès L.

*Instructor in French*

JOHN HERBERT BACHMANN, A.M.

*Instructor in German*

NORMAN EDWARD HOLT, A.B., SC.M.

*Instructor in Chemistry*

LAURENCE RICH GROSE, A.M.

*Instructor in English*

JOHN CORLISS DUNNING, PH.D.

*Instructor in Social and Political Science*

JOHN FREDERICK SIEVERS, A.M.

*Instructor in German*

BERNARD ALOYSIUS KEENAN, A.B.

*Assistant in German*

JEANNIE OLIVER ARNOLD, M.D.

*Medical Examiner*

HELEN WILBUR PAINE

*Instructor in Physical Training*

SARAH GRIDLEY ROSS, A.B.

*Hall Mistress, Miller Hall*

CLARA IRENE PERRY

*Librarian*

### COMMITTEE ON THE CURRICULUM

*Professors* POLAND, DAVIS, GARDNER, LANGDON, BRONSON, EVERETT, ALLINSON,  
MEAD, and MACDONALD, *Dean* KING.

### EXECUTIVE COMMITTEE

*President* FAUNCE, *Dean* KING, ROBERT HALE IVES GODDARD, *Rev.* HENRY  
MELVILLE KING, STEPHEN OLNEY METCALF.

### ADVISORY COUNCIL

*Miss* SARAH E. DOYLE, *Miss* AMELIA S. KNIGHT, *Mrs.* GUSTAV RADEKE, *Mrs.*  
CARL BARUS, *Mrs.* FRANCIS G. ALLINSON, *Miss* MARTHA W. WATT, *Mrs.*  
WILLIAM T. HASTINGS.

## COURSES OF INSTRUCTION

**C**OURSES designated by a † are given at the University; women are admitted to them, but only on the recommendation of the Dean of the Women's College. Women may also be admitted to some other University courses not announced here, with the special permission of the department and with the consent of the Dean of the Women's College. In courses designated by a \* a final mark covering the work of the course as a whole is given at the end of the course, the mark given at the end of the first semester being regarded as temporary.

With the exception of Biology 1 and 50, Greek Literature and History 20, and Roman Literature and History 3, courses offered to women are identical with corresponding courses offered to men. Detailed information may be found on pages 88-156. The officers of instruction are those conducting courses for men also, with the addition of:

LIDA SHAW KING, A.M., Professor of Classical Literature and Archaeology

ALICE WILSON WILCOX, A.M., Instructor in Biology

### ART

[1, 2. *History of Art from Antiquity through the Renaissance*]  
Not offered in 1911-12.

3, 4. *Modern Art, and Theory and Criticism of the Fine Arts*  
Professor POLAND.  
Tu., Wed., Sat., at 9.25.

15,\* 16.\* *Frechand Drawing*  
Rhode Island School of Design.

17,\* 18.\* *Advanced Drawing and Color Work*  
Rhode Island School of Design.  
Mon., Tu., Wed., at 2.

19,\* 20.\* *Architectural Design*  
Rhode Island School of Design.  
Mon. at 3.



## ASTRONOMY

1, 2. *General Course*

Professor UPTON.

*Wed., Fri., Sat., at 11.25.*7, 8.† *Advanced Astronomy*

## BIBLICAL LITERATURE AND HISTORY

1, 2.† *Elementary Hebrew*11, 12.† *Gospels and Epistles*[13, 14.† *Acts and Pauline Epistles*]

Not offered in 1911-12.

[15, 16. *Old Testament Literature and History*]

Not offered in 1911-12.

17, 18. *New Testament Literature and History*

Professor FOWLER.

*Tu., Wed., Sat., at 9.25.*[19, 20. *The English Bible as Literature*]

Not offered in 1911-12.

21, 22. \*† *Biblical Seminary*

## BIOLOGY

1, 2. *General Biology*

Miss WILCOX, assisted by Miss MALLETT.

Three hours. Six hours of attendance. *Tu., Wed., Sat., 9.25 to 11.15.*3, 4.† *Comparative Anatomy of Vertebrates*5, 6.† *Anatomy of the Nervous System*7, 8.† *Embryology and Histology*9, 10.† *Advanced Histology and Pathology*

11, 12.† *General Physiology*

13, 14.† *Chemical Physiology*

16.† *Bacteriology*

17, 18.† *Advanced Bacteriology*

19.† *Invertebrate Zoölogy*

20. *Ornithology*

Professor WALTER.

[24.† *Physiology*]

Not offered in 1911-12.

### 50. *Euthenics*

An experimental study of food and nutrition as the basis of the health of the individual. It includes the chemistry of the main food constituents, proteids, carbohydrates, fats; physiology of digestion and assimilation; quantitative analysis of milk, etc.; principles of selection and preparation of food; study of dietaries. *Miss WILCOX, assisted by Miss MALLETT.*

Three hours. Six hours of attendance. First semester. Elective for all Undergraduates who have had elementary chemistry. *Mon., Wed., Th., 10.25 to 12.15.*

### 51. *Euthenics, continued*

A theoretical study of the home as the centre of sanitary, aesthetic, and efficient family life. It includes the principles of selection of the ideal building site; sanitary construction of the house, with reference to the chief domestic supplies, air, water, light, heat, etc.; principles of household management from the point of view of the economic division of income, time and labor of the home-maker, and the health and efficiency of the household. Demonstrations of important features of domestic and municipal sanitation. *Miss WILCOX, assisted by Miss MALLETT.*

Three hours. Six hours of attendance. Second semester. Elective for students who have credit for 50, and for others by permission of the instructor. *Mon., Wed., Th., 10.25 to 12.15.*

## BOTANY

1, 2. *General Course*

Professor YORK.

Tu., Wed., Sat., at 9.25.

3, 4.† *Histology and Physiology*

[5, 6.† *Comparative Morphology*]

Not offered in 1911-12.

7, 8.† *Advanced Course*

10.† *Trees*

## CHEMISTRY

1, 2. *Descriptive Chemistry*

Professor BUCHER and Mr. HOLT.

Tu., Th., Sat., at 12.25.

3, 4.† *Qualitative and Quantitative Analysis*

5, 6.† *Quantitative Analysis, Advanced Course*

7, 8.† *Organic Chemistry*

10.† *Assaying*

12.† *Organic Dyes*

15, 16.† *Physical Chemistry*

20.† *Inorganic Chemistry, Advanced Course*

21, 22.† *Organic Preparations, Advanced Course*

23, 24.† *Inorganic Preparations, Advanced Course*

27, 28.† *Conference on Special Topics in Chemistry*

29, 30.† *Conference on Special Topics in Chemistry*

## ECONOMICS

1. *Elementary Economics*

Professor MOTLEY.

First semester. Followed in the second semester by Social and Political Science 1. Tu., Th., Sat., at 12.25.

3, 4. † *General Economics*5, 6. † *Money and Banking*7. *Socialism and Labor Problems*

Professor MOTLEY.

Second semester. Preceded in the first semester by Social and Political Science 3. Mon., Wed., Fri., at 12.25.

10. † *Tariff, Reciprocity, and Shipping Subsidies*[11. † *Public Finance*]

Not offered in 1911-12.

[12. † *The Financial History of the United States*]

Not offered in 1911-12.

[13. † *Statistics*]

Not offered in 1911-12.

[14. † *Accounting*]

Not offered in 1911-12.

[15. † *Trade and Transportation*]

Not offered in 1911-12.

[16. † *Corporations and Corporation Finance*]

Not offered in 1911-12.

21, 22. † *Investigation of Special Topics*23, 24. † *Economic Seminary*

## EDUCATION

1. *History of Education*

Professor JACOBS.

First semester. *Mon., Wed., Th., at 10.25.*2. *Principles of Education*

Professor JACOBS.

Second semester. *Mon., Wed., Th., at 10.25.*3. *The Process of Education; its Psychology and Hygiene*

Professor JACOBS.

First semester. *Mon., Th., Fri., at 9.25.*4. *Practical Introduction to Teaching*

Professor JACOBS.

Second semester. *Mon., Th., Fri., at 9.25.*

## ENGLISH

1, 2. *Rhetoric and Composition*

Messrs. HASTINGS, HARKNESS, and GROSE.

1st div., *Mon., Th., Fri., at 9.25*; 2d div., *Tu., Wed., Sat., at 9.25.*5, 6. *English Composition, Advanced Course*

Professor BENEDICT.

*Mon., Th., Fri., at 9.25.*[7, 8. *Argumentative Composition*]

Not offered in 1911-12.

[11, 12. *Public Speaking*]

Not offered in 1911-12.

15, 16. † *Old English*17, 18. † *Chaucer*19, 20. *English Literature from the Beginning to 1892*

Professor HUNTINGTON.

*Wed., Fri., Sat., at 11.25.*

[21, 22. *History of the Drama in England*]

Not offered in 1911-12.

23. *The Modern English Drama*

Professor CROSBY.

First semester. Tu., Fri., Sat., at 10.25.

42. *Contemporary English and American Literature*

Professor CROSBY.

Second semester. Tu., Fri., Sat., at 10.25.

[25, 26. *Shakspeare*]

Not offered in 1911-12.

27, 28. *Shakspeare*

Professor POTTER.

Tu., Th., Sat., at 12.25.

[29, 30. † *English Literature exclusive of the Drama, from 1600 to 1660*]

Not offered in 1911-12.

[31, 32. *English Literature from 1660 to 1798*]

Not offered in 1911-12.

[35. *English Literature from 1798 to 1832, Poetry*]

Not offered in 1911-12.

[36. *English Literature from 1798 to 1832, Prose*]

Not offered in 1911-12.

37. *English Literature from 1832 to 1892, Prose*

Professor BENEDICT.

First semester. Mon., Tu., Th., at 11.25.

38. *English Literature from 1832 to 1892, Poetry*

Professor BENEDICT.

Second semester. Mon., Tu., Th., at 11.25.

39, 40. *American Literature*

Professor BRONSON.

Mon., Wed., Fri., at 12.25.

43, 44. † *Seminary in English Literature*

## GEOLOGY

5.† *Physical Geography*

6.† *Economic Geography and Conservation*

## GERMANIC LANGUAGES AND LITERATURES

1, 2. *Elementary Course, First Year*

Mr. SIEVERS.

Mon., Wed., Fri., at 12.25.

3, 4. *Elementary Course, Second Year*

Professor CROWELL.

Mon., Tu., Th., at 11.25.

5, 6. *Intermediate Course*

Mr. KEENAN.

Mon., Wed., Fri., at 12.25.

7, 8. *Advanced Course in Standard Authors, Classical and Modern*

Mr. BACHMANN.

Mon., Wed., Fri., at 12.25.

9, 10.† *Modern Prose*

15, 16. *The German Short Story of the Nineteenth Century*

Professor VON KLENZE.

Tu., Wed., Sat., at 9.25.

21, 22.† *Goethe's Faust: Parts 1 and 2*

25, 26.† *Outline History of German Literature*

33.† *Old Norse*

34.† *Germanic Mythology*

35, 36.† *Middle High German*

## GREEK LITERATURE AND HISTORY

*A, B. Elementary Course**Professor MANATT and Mr. JACOBS.**Mon., Wed., Fri., at 12.25.**1. Homer and the Greek Anthology**Professor MANATT.**First semester. Mon., Tu., Th., at 11.25.**2. Lysias and Plato**Professor ALLINSON.**Second semester. Mon., Tu., Th., at 11.25.**3. Lucian and the Dramatic Poets**Professor ALLINSON.**First semester. Tu., Wed., Sat., at 9.25.**4. The Historians**Professor MANATT.**Second semester. Tu., Wed., Sat., at 9.25.**[5. Epic Poetry]**Not offered in 1911-12.**[6. The Drama]**Not offered in 1911-12.**[7. Lyric and Pastoral Poetry]**Not offered in 1911-12.**[8. Plato, Aristotle, and Aeschylus]**Not offered in 1911-12.**[9. The Attic Orators]**Not offered in 1911-12.**[10. Lucian and Pausanias]**Not offered in 1911-12.**15. Greek Civilization**Professor ALLINSON.**First semester. Mon., Wed., Fri., at 12.25.*



16, 17, 19. † *Greek Seminary*

20. *Introduction to Greek Archaeology*

Outline of the remains of the earliest Greek civilization; an introductory study of Greek vases, coins, small bronzes, and terra-cotta figurines. Intended to give a general survey of these sources for Greek history and life. Illustrated lectures; collateral reading. *Professor KING.*

Three hours. Second semester. Elective for students who have completed one course in Latin or Greek. *Mon., Th., Fri., at 9.25.*

## HISTORY

1, 2. *Medieval and Modern History of Europe*

*Professor MACDONALD.*

*Mon., Tu., Th., at 11.25.*

[3. *Period of the Renaissance*]

Not offered in 1911-12.

[4. *Period of the Reformation*]

Not offered in 1911-12.

5. *The French Revolution and the Napolconic Era*

*Professor COLLIER.*

First semester. *Mon., Tu., Th., at 11.25.*

6. *Europe since 1815*

*Professor COLLIER.*

Second semester. *Mon., Tu., Th., at 11.25.*

[7, 8. *English Constitutional and Political History to 1714*]

Not offered in 1911-12.

[9, 10. *English Constitutional and Political History since 1714*]

Not offered in 1911-12.

11, 12. † *Seminary in European History*

13, 14. *American History*

*Professor MACDONALD.*

*Tu., Fri., Sat., at 10.25.*

15, 16.† *Constitutional and Political History of the United States*

17, 18.† *Seminary in American History*

## INDO-EUROPEAN PHILOLOGY

[2. *General Introduction to the Study of Language*]

Not offered in 1911-12.

## MATHEMATICS

1. *Solid and Spherical Geometry*

Professor RICHARDSON and Dr. ARCHIBALD.

First semester. Tu., Fri., Sat., at 10.25.

2. *Trigonometry*

Professor RICHARDSON and Dr. ARCHIBALD.

Second semester. Tu., Fri., Sat., at 10.25.

3, 4. *Algebra*

Professor MANNING.

Mon., Th., Fri., at 9.25.

5. *Plane Analytic Geometry*

Professor DAVIS.

First semester. Mon., Wed., Th., at 10.25.

6. *Differential Calculus*

Professor DAVIS.

Second semester. Mon., Wed., Th., at 10.25.

7, 8.† *Differential and Integral Calculus*

9, 10.† *Differential Equations*

21, 22.† *Function Theory of a Complex Variable*

25, 26.† *Advanced Algebra*

27, 28.† *Differential Geometry*

[29, 30.† *Function Theory of a Real Variable*]

Not offered in 1911-12.

## MUSIC

1. *The Symphony*

Professor MACDOUGALL.

First semester. *Mon., Th., at 11.25.*

2. *Elementary Harmony*

Second semester. *Mon., Th., at 11.25.*

## PHILOSOPHY

3. *Psychology*

A survey of the main facts and laws of mental life, aiming to provide a sound foundation for further acquaintance with this and allied subjects, for an improved judgment in dealing with many practical problems, and for understanding the psychological bases of philosophy.

Professor DELABARRE.

For 1911-12 this course will be continued through the second semester. *Tu., Th., Sat., at 12.25.*

5, 6. † *Psychology, Intermediate Course*7, 8. *History of Philosophy*

Professor EVERETT.

*Mon., Wed., Th., at 10.25.*

[9. *Philosophy of Religion*]

Not offered in 1911-12.

11, 12. † *Experimental Psychology, Introductory Laboratory Course*13, 14. † *Problems of Modern Philosophy*[15, 16. † *Kantian and Post-Kantian Philosophy*]

Not offered in 1911-12.

[17, 18. † *Psychology, Advanced Course*]

Not offered in 1911-12.

19, 20. † *Experimental Psychology, Advanced Laboratory Course*

[20, 21.† *Advanced Ethics*]

Not offered in 1911-12.

23, 24.† *Philosophical Seminary*

## PHYSICS

1, 2. *Elementary Physics*

Professor BARUS.

Mon., Tu., Th., at 11.25.

3, 4.† *Elementary Physics, continued*

5, 6.† *Experimental Physics*

7, 8.† *Mathematical Treatment of Dynamical Problems*

9, 10.† *Mathematical Theory of Electricity and Magnetism*

11, 12.† *Advanced Laboratory Course*

13, 14.† *Applied Harmonic Analysis and Applied Vector Analysis*

15, 16.† *Physics, Advanced Course*

23, 24.† *Precision Measurements in Photometry, Electricity, and Magnetism*

25, 26.† *Radiation, Optics, and Heat*

## ROMAN LITERATURE AND HISTORY

1. *Livy*

Professor GREENE.

First semester. Mon., Tu., Th., at 2.25.

2. *Cicero's Letters*

Professor GREENE.

Second semester. Mon., Tu., Th., at 2.25.

3. *Catullus, Tibullus, Propertius*

Professor KING.

First semester. Mon., Th., Fri., at 9.25.

4. *Horace's Satires, Juvenal*

Professor HARKNESS.

Second semester. *Tu., Fri., Sat., at 10.25.*

5, 6. *Latin Poetry*

Professors HARKNESS and GREENE.

*Tu., Th., Sat., at 12.25.*

[7, 8. *Latin Prose*]

Not offered in 1911-12.

[11, 12. *Latin Composition*]

Not offered in 1911-12.

15. *Roman Civilization*

Professor GREENE.

Second semester. *Mon., Wed., Fri., at 12.25.*

ROMANCE LANGUAGES AND LITERATURES

[1, 2. *Elementary Course, First Year*]

Not offered in 1911-12.

5, 6. *Intermediate Course*

Mr. CHINARD.

*Mon., Wed., Th., at 10.25.*

7, 8. *Advanced Course*

Professors JOHNSON and BACON.

*1st div., Tu., Wed., Sat., at 9.25; 2d div., Wed., Fri., Sat., at 11.25.*

9, 10. *The Realistic School*

Professor JOHNSON.

*Mon., Wed., Th., at 10.25.*

11, 12. *The Romantic School*

Professor HUNKINS.

*Tu., Wed., Sat., at 9.25.*

13, 14.† *The Classical School*

15, 16.† *Modern Spanish*

[17, 18. *Modern Italian*]

Not offered in 1911-12.

[19, 20. *Dante in English*]

Not offered in 1911-12.

## SOCIAL AND POLITICAL SCIENCE

### SOCIAL SCIENCE

1. *Social and Political Science, Elementary*

Professor DEALEY.

Second semester. Preceded in the first semester by Economics 1. Tu., Th., Sat., at 12.25.

3, 4. *Social Problems and Conditions*

Professor DEALEY and Dr. DUNNING.

Wed., Fri., Sat., at 11.25.

5, 6.† *Ancient Society and its Institutions*

7.† *Sociology as a Science*

8.† *Application of Sociological Principles*

9, 10.† *Sociological Aspects of Education*

13, 14.† *Investigation of Special Topics*

### POLITICAL SCIENCE

3. *Government and Politics of the United States*

Dr. DUNNING.

First semester. Followed in the second semester by Economics 7. Mon., Wed., Fri., at 12.25.

11, 12.† *Current Social and Political Theory and Practice*

## PHYSICAL TRAINING

*Mrs. PAINE*

From December 4 to March 29, all first and second year students are required to attend gymnasium classes three times a week, as follows:

SOPHOMORE DIVISION : *Mon., Tu., Th., 2.30 to 3.15.*

FRESHMAN DIVISION : *Mon., Tu., Th., 3.25 to 4.10.*

A voluntary class for Juniors and Seniors will be held on *Fri. at 2.30.*

## ORGANIZATION OF THE WOMEN'S COLLEGE†

**I**NSTRUCTION for undergraduate women§ is provided by a department of the University known as THE WOMEN'S COLLEGE IN BROWN UNIVERSITY. The aim of the Women's College is to offer to all properly prepared women the same examinations, the same courses of study under the same teachers, and the same degrees that the University offers to men, but to preserve the distinct social life of a separate college.

The Corporation of the University has supervision and control of the Women's College as of other departments of the University, and for this purpose appoints annually an Executive Committee of the Women's College. The Corporation receives gifts of money to found scholarships, fellowships, and professorships in Brown University for the benefit of its women students, and for the general purposes of the Women's College, and holds and administers such funds as separate and distinct from the general funds of the University. All gifts, legacies, and bequests for the Women's College, like those meant for any other department of the University, should be made payable to "Brown University, in Providence, in the State of Rhode Island and Providence Plantations," and designated for the use of the Women's College.

The President of the University is charged with the general direction, supervision, and government of this College as of other departments of the University. The immediate direction, supervision, and control devolve, subject to the direction of the President, on the Dean of the Women's College. An Advisory Council, appointed under the authority of the Corporation, advises with the President and the Dean upon matters relating to the Women's College, and makes recommendations to the Executive Committee of the Women's College or to the Corporation.

The Faculty of the Women's College is composed of the heads of all departments of instruction in Brown University, together with all professors and instructors who are actually teaching in the College.

†Bulletins of the Women's College may be obtained from the Registrar, The Women's College in Brown University, Providence, R. I. For information not contained in this Catalogue or in the Bulletins, apply to the Dean of the Women's College.

§In the Graduate Department of Brown University all courses intended for graduate students are open to women on the same terms as to men.

The Women's College has a separate recitation hall, gymnasium, and dormitory, but uses the various libraries, laboratories, and museums of the University. For a description of these latter buildings, see pages 161-170. The grounds of the Women's College are an eighth of a mile from the University, with the main entrance at 172 Meeting Street. Pembroke Hall, the recitation building, contains the offices of the Dean and the Registrar, recitation rooms, a reading room and a library, a study, a chapel, and a lunch room. The Sayles Gymnasium contains the offices of the Instructor in Physical Training, a large hall with a gallery, a rest room, a study hall, and recitation rooms; the basement is fitted up with dressing rooms, bathrooms, lockers, needle and shower baths, and bowling alleys. The dormitory, Miller Hall, opened in 1910, is on the college campus. It contains a library, reception, dining and sitting rooms, an apartment for the Hall Mistress, and rooms for forty-eight students.

### REQUIREMENTS FOR ADMISSION

The requirements for admission to the Women's College are the same as those which the University prescribes for men. For information concerning admission by certificate or examination, and the times and places of examinations, see pages 41, 42. Certificates and applications for permission to take examinations should be sent to the Registrar of the University. For the entrance requirements for the various degrees, admission to advanced standing, and admission of special students, see pages 43-70. Each applicant for registration as a special student must consult the Dean of the Women's College before registering.

### REGISTRATION AND ENROLMENT

The regulations governing registration and enrolment are the same at the Women's College as at the University. (See pages 69, 70.) All students must apply for registration and enrolment at the office of the Registrar of the Women's College, in Pembroke Hall, between 9 a.m. and 12 m., or between 2 p.m. and 4 p.m., on the same days as at the University. Permission to change a previous registration must be obtained from the Dean, on the same days and at the same hours.

### REQUIREMENTS FOR DEGREES

The requirements for the various degrees are explained on pages 72-84. Upon students of the Women's College who complete satisfactorily the work leading to the degree of Bachelor of Arts, Bachelor of Philosophy, or Bachelor of Science, the Board of Fellows of the University confers the appropriate degree. For the degrees conferred in 1911, see pages 197-199.

### EXAMINATIONS

As a rule women take the same examinations as those offered to men, and at the same times and places. When a separate examination is necessary, the



two examinations are made as nearly identical in character as possible. (See pages 85-87.)

### PHYSICAL TRAINING AND MEDICAL CARE

From the close of the Thanksgiving recess to the spring recess three hours a week of physical training are required of first and second year students; for other students voluntary classes are held. All work, including out-door work, is under the supervision of the instructor. At the beginning and at the close of the Freshman and Sophomore years, students are carefully examined both by the College Physician and by the Director of the Department. Early each fall the College Physician meets the new students in small groups to discuss physical conditions in college life. Any student, not living at home, may in case of illness visit or summon the College Physician; for this first call no fee is charged.

### FEES

Students at the Women's College pay the tuition fee of \$150 in two instalments: \$75 upon registration in September and \$75 upon registration in February. Freshmen pay a matriculation fee of \$5 upon registering in September. No deduction in tuition is made on account of absence. Laboratory fees, etc., must be paid two weeks before the close of a semester.

Special students at the Women's College are charged \$15 a semester for each course holding three recitations a week. Laboratory fees are in addition to this.

### DORMITORY ACCOMMODATIONS

Miller Hall, the college dormitory, contains forty-eight single rooms, adequately furnished. The charge for room and board varies from \$270 to \$250 a year. Definite applications for rooms must be received by the Hall Mistress on or before May 1. The plan of the building and all other needed information is printed in a separate pamphlet, which may be obtained from Miss S. G. Ross, Hall Mistress, Miller Hall, 118 Cushing Street. Students who cannot secure rooms in Miller Hall are required to live in houses authorized by the College. A list of these may be obtained from the Hall Mistress.

### LOAN FUNDS AND SCHOLARSHIPS

The College has a loan fund and various scholarships designed to aid deserving students. Aid is given only to students whose work is creditable, and is withdrawn if the recipients become deficient in scholarship or subject to college discipline. Applications should be made in writing to the Dean of the Women's College on or before May 1. Awards are made after July 1.

The Rhode Island Society for the Collegiate Education of Women has founded a Loan Fund from which students of the Women's College who have completed their first year may borrow moderate sums at a low rate of interest.

This fund is available only for students whose record for scholarship is satisfactory to the committee which administers the loans. Further information may be obtained from the Dean.

The Rhode Island Women's Club annually devotes the income of its Churchill Fund toward the payment of the tuition of some student in the Women's College, preferably the daughter of a member of the Club.

There are also the following endowed scholarships :

**THE SARAH E. DOYLE SCHOLARSHIP**, of one thousand dollars, which bears the name of its founder; the income is applied toward the payment of the tuition of students in the Women's College who have been prepared for college in the Providence English High School.

**THE SARAH SUTTON SCHOLARSHIP**, of one thousand dollars, founded by one of her daughters.

**THE DANIELS SCHOLARSHIP**, of twenty-five hundred dollars; the income to be used toward paying the expenses of one or more women pursuing studies either in the University or in the Women's College.

**THE HOWARD SCHOLARSHIP**, of one thousand dollars, presented by James Leland Howard.

**THE THAYER SCHOLARSHIP**, founded by Edward C. Thayer, in honor of his father, Joseph Thayer, of the class of 1815; the income to be for the education of any young man or woman a resident of Uxbridge, Mass., indorsed by the selectmen and superintendent of schools there, needing pecuniary aid, and giving promise by character and scholarship of a life of usefulness. If there is no applicant from Uxbridge, the income may go to any applicant from Massachusetts who fulfils the conditions.

**THE MARIA STORRS PECK SCHOLARSHIP**, of one thousand dollars, presented by her sisters.

**THE ELI THAYER SCHOLARSHIP OF THE OREADS**, of three thousand dollars, founded by the Oread Collegiate Institute Association, in memory of the Hon. Eli Thayer, the founder of the Institute; the income to be for the education of a deserving student in the Women's College, preferably a descendant of a former student of the Institute.

The College awards annually from its own funds scholarships of varying amounts, to students in need of financial aid.

### PRIZES, PREMIUMS, AND HONORS

**THE GASPEE CHAPTER DAUGHTERS OF THE AMERICAN REVOLUTION PRIZE**. This prize of forty dollars is awarded annually to that student in the graduating class of the Women's College who shall present the best essay of recognized merit upon some topic in American history. The essays are to bear each an assumed name, and to be accompanied by an envelope marked

with the assumed name and inclosing the candidate's real name and address. The essays must be handed to the Dean before May 1. The award is announced at Commencement. The subject for 1911-12 is: *The History of Rhode Island during the Critical Period, 1781-1787.*

**THE CHACE PRIZE.** The will of Mrs. Elizabeth D. Chace makes provision for a prize of twenty-five dollars, to be awarded to that student of the Women's College who shall present the best essay, of recognized merit, upon the Women's Suffrage Movement.

**THE SOCIETY OF COLONIAL DAMES PRIZE IN AMERICAN HISTORY.** The income of a fund of fifteen hundred dollars, known as the Roger Williams Fund established by the National Society of Colonial Dames in the State of Rhode Island and Providence Plantations, given to the University in 1906, is awarded annually as a prize for the best essay on a subject in American colonial history. The competition is open to Juniors, Seniors, and Graduates, and to men and women on equal terms. Essays must show independent use of authorities, and should, in general, extend to at least four thousand words. Detailed regulations governing the competition are announced from year to year. The award is announced at Commencement. The subject for 1911-12 is: *Rhode Island Trade and Commerce during the American Revolution.*

**ADDITIONAL PREMIUMS.** The students of the Women's College are entitled to compete in all examinations for premiums and prizes offered in Brown University. In case any woman is entitled to a first premium, competed for by examination, a prize, the amount of which is duly announced, is awarded by the Dean.

**FINAL HONORS** are awarded by the University to women on the same conditions as to men. (See pages 195, 196.)

### PRIZES AND PREMIUMS AWARDED IN 1911

The Gaspee Chapter Daughters of the American Revolution Prize, to  
GERTRUDE HILDRETH CAMPBELL.

The Society of Colonial Dames Prize to  
LIDA MAY BASSETT.

The Foster Premium in Greek: a collateral first premium to  
GERTRUDE HILDRETH CAMPBELL.

The Lucius Lyon Premium in Latin: a collateral first premium to  
ELIZABETH DEXTER THACHER.

A collateral first premium in French to BLANCHE ANTOINETTE SCHILLER, instructed in the Central Falls High School.

A collateral first premium in German to EMELIA ADELLE HEMPEL, instructed in the English High School, Providence.

# STUDENTS IN THE WOMEN'S COLLEGE

## SENIORS : CLASS OF 1912

NAME	RESIDENCE
Elsie Angèle Anderson	<i>East Bridgewater, Mass.</i>
Lydia Harris Andrews	<i>Providence</i>
Lottie Maria Angell	<i>Putnam, Ct.</i>
Harriet Colburn Bennett	<i>Providence</i>
Mela Elsie Bennett	<i>Providence</i>
Mildred Catherine Bishop	<i>North Attleboro, Mass.</i>
Annie Phillips Borland	<i>Providence</i>
Gertrude Morton Butler	<i>Mansfield, Mass.</i>
Elinor Margaret Caldwell	<i>Pawtucket</i>
Marion Frances Catlin	<i>Hill, N. H.</i>
Margaret Brooks Church	<i>Providence</i>
Margaret Griswold Collins	<i>Bridgeport, Ct.</i>
Gertrude Mary Conant	<i>Pawtucket</i>
Laura Elizabeth Cooke	<i>Providence</i>
Marion Jane Emsley	<i>North Scituate</i>
Minnie May Fogg	<i>Laconia, N. H.</i>
Irene Hawes	<i>Riverside</i>
Alice Hubbard	<i>Providence</i>
Beatrice Florence Kohlberg	<i>Providence</i>
Regina Theresa Loftus	<i>North Adams, Mass.</i>
Clare Edgerton Longley	<i>Worcester, Mass.</i>
Jessie Isabelle Monroe	<i>Providence</i>
Mildred Louise Mott	<i>Providence</i>
Ida May Nichols	<i>Providence</i>
Clara Irene Perry	<i>Providence</i>
Annie Pickles	<i>Providence</i>
Ollie Annette Randall	<i>Providence</i>
Clarice Emily Ryther	<i>Providence</i>
Florence Binford Southwick	<i>Pawtucket</i>
Margaret Parkhurst Stevens	<i>Newport</i>
Marion Slater Stone	<i>Providence</i>
Mary Sweetland	<i>Providence</i>
Ann Eliza Thomas	<i>Providence</i>
Hazel Marguerite Valentine	<i>Westbrook, Me.</i>
Dorothy Charlotte Walter	<i>Lyndonville, Vt.</i>
Irene Warren	<i>New Haven, Ct.</i>

## JUNIORS : CLASS OF 1913

NAME	RESIDENCE
Rose Mary Bancroft	<i>Glastonbury, Ct.</i>
Mary Elizabeth Barnicle	<i>Providence</i>
Jessie Helen Barr	<i>Providence</i>
Helen Irene Barrett	<i>Providence</i>
Marion Hortense Bayley	<i>Newburyport, Mass.</i>
Irene Mary Cecilia Belanger	<i>New Bedford, Mass.</i>
Marilla Letitia Bogle	<i>Fall River, Mass.</i>
Mildred Ethel Bosworth	<i>Georgiaville</i>
Aline Bourgeois	<i>Newport</i>
Hilda Rowena Bronson	<i>Morgan Park, Ill.</i>
Rosalind Celestine Brooks	<i>Providence</i>
Mildred Browning	<i>Pawtucket</i>
Gladys Chidley Bushell	<i>Providence</i>
Alletta Kreemer Chamberlain	<i>Central Falls</i>
Mary Fifield Clarke	<i>Centrerille</i>
Edith Frances Coolidge	<i>Fall River, Mass.</i>
Lillian Lucy Davenport	<i>Pawtucket</i>
Vida Maud Dexter	<i>Providence</i>
Norah Eloise Dowell	<i>Providence</i>
Cornelia Fill	<i>Springfield, Mass.</i>
Hazel Mellie Fowler	<i>Newburyport, Mass.</i>
Marion Bristow Greene	<i>Providence</i>
Helen Matilda Hastings	<i>Feeding Hills, Mass.</i>
Lucile Spencer Himes	<i>Phenix</i>
Theckla Jones	<i>Westerly</i>
Mary Madeleine Kane	<i>Pontiac</i>
Elva Marion Lake	<i>Fall River, Mass.</i>
Alice Victoria Lisk	<i>Hackensack, N. J.</i>
Barbara Littlefield	<i>Providence</i>
Marion Rawson Luther	<i>Providence</i>
Isabel McMurtry	<i>Providence</i>
Ottillie Rose Metzger	<i>Providence</i>
Annie Evelyn Ottley	<i>Wickford</i>
Gladys Paine	<i>Palmer, Mass.</i>
Winifred Augusta Palmer	<i>Cranston</i>
Bessie Gertrude Roche	<i>Thorndike, Mass.</i>
Ruth Elizabeth Ryther	<i>Providence</i>
Blanche Gertrude Snow	<i>Pawtucket</i>
Harriet Marguerite Stadtfeld	<i>Phenix</i>
Minnie White Taylor	<i>Providence</i>
Evelyn Butler Tilden	<i>Peru, Vt.</i>

NAME	RESIDENCE
Hazelle Marie Underwood	<i>Providence</i>
Myra Inman Washburn	<i>Charlotte, N. C.</i>
Elizabeth Wave Whitman	<i>North Stonington, Ct.</i>
Catherine Slocum Williams	<i>Newport</i>

## SOPHOMORES : CLASS OF 1914

Marguerite Appleton	<i>Providence</i>
Miriam Amy Banks	<i>Providence</i>
Marion Cheever Bates	<i>Providence</i>
Harriet Stanton Baxter	<i>Montello, Mass.</i>
Elizabeth Bodfish	<i>Palmer, Mass.</i>
Alita Dorothy Bosworth	<i>Providence</i>
Mary Lyon Bosworth	<i>Providence</i>
Dorris Snow Briggs	<i>Providence</i>
Helen Harriet Briggs	<i>Providence</i>
Laura Julia Brown	<i>Barrington</i>
Anna Maria Browne	<i>Pawtucket</i>
Margaret Josephine Burdon	<i>Oakville, Ct.</i>
Mildred Myrtle Chapman	<i>Providence</i>
Bessie Anne Clow	<i>East Wolfboro, N. H.</i>
Grace Amelia Cockroft	<i>Webster, Mass.</i>
Jane Wilson Cook	<i>Fall River, Mass.</i>
Ruth Elizabeth Cooke	<i>Providence</i>
Margaret Crooks	<i>Ravenswood, W. Va.</i>
Katherine Elizabeth Curry	<i>Providence</i>
Mildred Elaine Cutler	<i>Pawtucket</i>
Hermione Louise Dealey	<i>Providence</i>
Marion Frances Devine	<i>Woonsocket</i>
Blanche Douglas	<i>Moosup, Ct.</i>
Mildred Morris Flagg	<i>Littleton, Mass.</i>
Anna Madeline Flaherty	<i>Valley Falls</i>
Helen Augusta Gilliland	<i>Norwood, Mass.</i>
Anna Ruth Goodechild	<i>Providence</i>
Margaret Ella Gordon	<i>Providence</i>
Mary Christina Grandfield	<i>Pawtucket</i>
Frances Violet Heltzen	<i>Providence</i>
Edith Edwina Holden	<i>West Barrington</i>
Dorothy Palmer Hull	<i>Providence</i>
Myrtle Horton Jones	<i>Seattle, Wash.</i>
Sybil Marguerite Kemp	<i>Kingston, N. H.</i>
Elena Roxana Lovell	<i>East Providence</i>
Marjorie Anita Mallory	<i>Providence</i>

NAME	RESIDENCE
Elizabeth Price Moulton	<i>Providence</i>
Mabel Irene Osborne	<i>Danville, N. H.</i>
Jenny Martha Palmer	<i>Cranston</i>
Winona Merle Perry	<i>Providence</i>
Helen Olivia Price	<i>Providence</i>
Maude Eunice Sears	<i>Providence</i>
Rowena Albro Sherman	<i>Providence</i>
Florence McGregor Simonds	<i>Franklin, Mass.</i>
Hope Sisson	<i>Providence</i>
Stella Mary Smith	<i>Fall River, Mass.</i>
Marjorie Arnold Thayer	<i>Woonsocket</i>
Maud Tucker	<i>Providence</i>
Alice Mary Waddington	<i>Providence</i>
Della Edith Wood	<i>Providence</i>
Helen Humphry Wood	<i>Providence</i>

## FRESHMEN : CLASS OF 1915

Elizabeth Lucy Angell	<i>Providence</i>
Madeleine Frances Bannan	<i>Providence</i>
Janet Macfarlane Bourn	<i>Providence</i>
Lucy Elizabeth Bourn	<i>Providence</i>
Almira Bashford Coffin	<i>Newport</i>
Lydia Louise Cooper	<i>Attleboro, Mass.</i>
Ethel Lucetta Crompton	<i>Methuen, Mass.</i>
Helen Crooker	<i>Methanticut</i>
Helen Alida Daniels	<i>Providence</i>
Laura Helena Fanning	<i>Valley Falls</i>
Marjorie May Farnum	<i>Uxbridge, Mass.</i>
Doris Bradford Field	<i>Providence</i>
Carrie Thompson Foulkes	<i>Mansfield, Mass.</i>
Fay Munroe Gannett	<i>Providence</i>
Marion Page Harley	<i>Pawtucket</i>
Emelia Adelle Hempel	<i>Providence</i>
Ruth Margaret Henderson	<i>Norwich, Ct.</i>
Florence Belle Hopkins	<i>Foster</i>
Marion Katherine Horton	<i>Danielson, Ct.</i>
Elsbeth Jones	<i>Westerly</i>
Maybell Olney Kingsley	<i>Saylesville</i>
Gertrude Emma Kneeland	<i>Worcester, Mass.</i>
Marion Frances Knowlton	<i>Providence</i>
Lillian Irene Mathewson	<i>Johnston</i>
Mary Eleanor Moore	<i>Southington, Ct.</i>

## BROWN UNIVERSITY

NAME	RESIDENCE
Ruth Eleanor Norris	<i>Brockton, Mass.</i>
Marguerite Inez Peck	<i>Woonsocket</i>
Marie Therese Phetteplace	<i>Providence</i>
Helen Earl Potter	<i>Natick</i>
Elinor Edna Randall	<i>Providence</i>
Frances Marjorie Richardson	<i>Putnam, Ct.</i>
Freda Sylvia Rose	<i>Providence</i>
Ethel Marguerite Sack	<i>Providence</i>
Blanche Antoinette Schiller	<i>Central Falls</i>
Florence Louise Shaw	<i>Webster, Mass.</i>
Elsie Lawrence Smith	<i>Hebronville, Mass.</i>
Edna Goldberg Solinger	<i>Providence</i>
Edna Frances Southwick	<i>Pawtucket</i>
Nancy Steere	<i>Providence</i>
Lillian Sanford Stenhouse	<i>Middleboro, Mass.</i>
Elizabeth Agnes Sullivan	<i>Hamilton</i>
Pearle Lee Temple	<i>Providence</i>
Ruth Harriet Thayer	<i>Springfield, Mass.</i>
Hattie Loraine Turner	<i>Claremont, N. H.</i>
Marian Eleanor Walling	<i>Providence</i>
Elizabeth Gregory Walter	<i>Lyndonville, Vt.</i>
Alma May Waterman	<i>Cranston</i>
Gladys Elizabeth Wilbur	<i>Natick</i>
Charlotte Audra Young	<i>Bristol</i>
Lucy Alma Young	<i>Danielson, Ct.</i>

## SPECIAL STUDENTS

Esther Georgina Anderson	<i>Providence</i>
Dorothy Davis	<i>Providence</i>
Edna-Rhodes Gardiner	<i>Providence</i>
Laura Russell Gibbs	<i>Wareham, Mass.</i>
Leah Hyman Lasker	<i>Providence</i>
Ruth Long	<i>Denver, Col.</i>
Mary Malcolm	<i>Franklin, Ind.</i>
Nellie Daisy Ramaker	<i>Sheboygan, Wis.</i>



## APPENDIX

### THE BROWN UNIVERSITY TEACHERS' BUREAU

THE Brown University Teachers' Bureau was established for the purpose of facilitating communication between the heads of educational institutions and graduates of Brown who desire positions as teachers. To this end it solicits correspondence with those who are seeking teachers, and invites inspection of the list of teachers now registered. It advises graduates of Brown who wish its assistance to register at once, and, if possible, to meet the Secretary in a personal interview. It offers to undergraduates information as to subjects in which there is a demand for teachers, as to positions commonly open to recent graduates, and as to the preparation usually required. No charge for the services of the Bureau is made either to students or to schools. It is the further purpose of the Bureau to foster coöperation between the University and all graduates engaged in the work of education. As far as possible an accurate register of the addresses and the positions of all such graduates is kept. The office of the Secretary, Professor WALTER BALLOU JACOBS, is in the Administration Building, Room 10.

### THE BROWN UNIVERSITY BUREAU OF APPOINTMENTS

This Bureau has been established to assist former students of the University in securing other kinds of employment than those cared for by the Teachers' Bureau. It desires to obtain from friends of the University information in regard to positions available for college men. This information it will supply to those who may register with the Bureau. Blanks for this purpose may be obtained from the Secretary and no charge will be made for the services of the Bureau. The office of the Secretary, Professor ANSEL BROOKS, is in the Engineering Building, Room 15.

### THE BROWN UNIVERSITY TEACHERS' ASSOCIATION

The Brown University Teachers' Association was organized in 1903. The purpose of the Association is "first, to further the mutual interests of Brown University and the schools preparing students therefor; and second, to pro-

mote the welfare of the Alumni of the University who are teachers." The ninth annual meeting of the Association was held at Brown University on Friday and Saturday, March 31 and April 1, 1911.

#### OFFICERS FOR 1911-12

*President:* PROFESSOR ALBERT GRANGER HARKNESS, LITT.D.

*First Vice-President:* EVERETT BROWNELL DUFEE, A.M.

*Second Vice-President:* PROFESSOR ALBERT KNIGHT POTTER, A.M.

*Secretary:* PROFESSOR WALTER BALLOU JACOBS, A.M.

*Treasurer:* CLARENCE HARTWELL MANCHESTER, A.M.

*Executive Committee:* THE OFFICERS OF THE ASSOCIATION AND THE PRESIDENT OF THE UNIVERSITY, *ex officio*; JOHN SHAW FRENCH, PH.D., ETHEL ELLA TOWER, A.M., AMASA AMIDON HOLDEN, A.M.

### THE RHODE ISLAND ALPHA OF THE PHI BETA KAPPA SOCIETY

#### OFFICERS AND COMMITTEES FOR 1911-12

*President:* PROFESSOR ALBERT GRANGER HARKNESS, LITT.D.

*Vice-President:* ROBERT PERKINS BROWN, A.M.

*Secretary:* PROFESSOR OTIS EVERETT RANDALL, PH.D.

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*Committee on Arrangements:* HON. CHARLES CARNEY MUMFORD, A.M., PROFESSOR WALTER GOODNOW EVERETT, PH.D., DR. GEORGE THURSTON SPICER, A.M.

*Auditing Committee:* WALTER JAMES TOWNE, A.M., WILLIAM WASHBURN MOSS, A.M.

*Committee on New Chapters:* PROFESSOR OTIS EVERETT RANDALL, PH.D., PROFESSOR WALTER BALLOU JACOBS, A.M., REV. THOMAS ELLIOTT BARTLETT, A.B.

#### MEN ELECTED IN 1911

*Seniors:* PAUL APPLETON, CLARE STEELE JOHNSTON, JAMES RUSSELL MCKAY, JULIUS ADOLPH SAACKE, WARREN ANDREW SHERMAN.

*Juniors:* DANIEL LUCIUS BROWN, ARTHUR FRANCIS BUDDINGTON, LEROY FRANCIS BURROUGHS, WILLIAM HAVEN DINKINS, DONALD GERALD DONOVAN, CHARLES AMBROSE MALLOY, DANA GARDNER MUNRO, SAMSON NATHANSON.

## WOMEN ELECTED IN 1911

*Seniors:* BESSIE EDITH BLOOM, CATHERINE FRANCES NULTY, MARJORIE PHILLIPS WOOD.

*Juniors:* ANNIE PICKLES, MARGARET PARKHURST STEVENS, DOROTHY CHARLOTTE WALTER.

## THE BROWN CHAPTER OF THE SOCIETY OF THE SIGMA XI

Students who have taken at least fifty-two semester hours in pure or applied science are, in their Senior year, eligible to membership in the honorary scientific society, Sigma Xi, provided that they have "given promise of marked ability in those lines of work which it is the object of the Society to promote."

## OFFICERS AND COMMITTEES FOR 1911-12

*President:* Professor WILLIAM HERBERT KENERSON, M.E.

*Vice-President:* Professor CHARLES WILSON BROWN, A.M.

*Recording Secretary:* Professor ROLAND GEORGE DWIGHT RICHARDSON, Ph.D.

*Corresponding Secretary:* Professor ANSELL BROOKS, M.E.

*Treasurer:* Professor HERBERT EUGENE WALTER, Ph.D.

*Auditor:* Professor HENRY PARKER MANNING, Ph.D.

*Councillor:* Professor ALBERT DEFOREST PALMER, Ph.D.

*Committee on Nominations:* Professor NATHANIEL FRENCH DAVIS, LL.D., Professor ALBERT DAVIS MEAD, Ph.D., Professor WINSLOW UPTON, Sc.D., Professor WILLIAM HERBERT KENERSON, M.E., Professor ROLAND GEORGE DWIGHT RICHARDSON, Ph.D.

## MEMBERS ELECTED IN 1911

*Graduate:* ROBERT FOSTER CHAMBERS.

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## OFFICERS AND COMMITTEES FOR 1911-12

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*Treasurer:* ROBERT WENDELL TAFT, PH.B., '91, Providence.

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### OFFICERS FOR 1911-12

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*Vice-President*: Miss SARAH GRIDLEY ROSS, A.B., Providence.

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*Treasurer*: Mrs. FLORENCE JOSEPHINE WHITING, A.M., Plainville, Mass.

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# TABLE SHOWING RENT AND LOCATION OF DORMITORY ROOMS

## HOPE COLLEGE

<i>No.</i>	<i>Division</i>	<i>Floor</i>	<i>Windows face</i>	<i>Bedrooms</i>	<i>Rent</i>
1	South	1	E. & S.	There are no separate bedrooms, but Nos. 1 and 2, 5 and 6, 9 and 10, 35 and 36, 39 and 40, 43 and 44, can be used either as suites or as single rooms.	\$136
2	"	"	W. & S.		142
3	"	"	W.		136
4	"	"	E.		133
5	"	2	E. & S.		136
6	"	"	W. & S.		142
7	"	"	W.		136
8	"	"	E.		133
9	"	3	E. & S.		127
10	"	"	W. & S.		137
11	"	"	W.		127
12	"	"	E.		121
13	"	4	E. & S.		121
14	"	"	W. & S.		127
15	"	"	W.		121
16	"	"	E.		118
17	Middle	1	E.		133
18	"	"	W.		136
19	"	"	W.		136
20	"	"	E.		133
21	"	2	E.		133
22	"	"	W.		136
23	"	"	W.		136
24	"	"	E.		133
25	"	3	E.		121
26	"	"	W.		127
27	"	"	W.		127
28	"	"	E.		121
29	"	4	E.		118
30	"	"	W.		121
31	"	"	W.		121
32	"	"	E.		118
33	North	1	E.		133
34	"	"	W.		136
35	"	"	W.		148
36	"	"	E.		148
37	"	2	E.		133
38	"	"	W.		136
39	"	"	W. & N.		148
40	"	"	E. & N.		148
41	"	3	E.		121
42	"	"	W.		127
43	"	"	W. & N.		136
44	"	"	E. & N.		136
45	"	4	E.		118
46	"	"	W.		121
47	"	"	W. & N.		127
48	"	"	E. & N.		127

## BROWN UNIVERSITY

## UNIVERSITY HALL

<i>No.</i>	<i>Division</i>	<i>Floor</i>	<i>Windows face</i>	<i>Bedrooms</i>	<i>Rent</i>
4	South	1	W.	None	\$140
10	"	2	S. & W.	2	235
12	"	"	W.	None	125
13	"	"	W.	"	125
16	"	"	E.	"	110
17	"	"	E.	"	116
18	"	"	E. & S.	"	143
19	"	3	S. & W.	2	225
21	"	"	W.	None	122
22	"	"	W.	"	122
25	"	"	E.	"	110
26	"	"	E.	"	110
27	"	"	E. & S.	"	131
28	"	4	S. & W.	2	205
30	"	"	W.	None	110
31	"	"	W.	"	110
32	"	"	E.	"	107
33	"	"	E.	"	107
34	"	"	E. & S.	"	131
36	North	1	W.	"	141
40	"	2	W.	"	125
41	"	"	W.	"	125
43	"	"	W. & N.	2	235
44	"	"	E. & N.	None	131
45	"	"	E.	"	116
46	"	"	E.	"	116
47	"	3	W.	"	116
48	"	"	W.	"	116
50	"	"	W. & N.	2	225
51	"	"	E. & N.	None	125
52	"	"	E.	"	110
53	"	"	E.	"	110
54	"	4	W.	"	110
55	"	"	W.	"	110
57	"	"	W. & N.	2	195
58	"	"	E. & N.	None	125
59	"	"	E.	"	107
60	"	"	E.	"	107

## SLATER HALL

1	South	1	E. S. & W.	2	260.00
2	"	"	E. & W.	1	200.00
3	"	2	E. S. & W.	2	260.00
4	"	"	E. & W.	2	245.00
5	"	3	E. S. & W.	2	250.00
6	"	"	E. & W.	2	245.00
7	"	4	E. S. & W.	1	175.00
8, 9	"	"	W.	1	194.00
10	North	1	E. & W.	2	269.50
11	"	"	E. W. & N.	2	269.50



SLATER HALL (*continued*)

No.	Division	Floor	Windows face	Bedrooms	Rent
12	North	2	E. & W.	2	\$269.50
14	"	"	W. N. E.	2	286.00
15	"	3	W. & E.	2	264.00
17	"	"	W. N. E.	2	275.00
18, 19	"	4	E. & W.	1	206.80
20	"	"	W. N. E.	1	176.00

CASWELL HALL

1	North	1	E. N. & W.	1	375
2	"	"	E. & W.	1	350
3	"	2	E. N. & W.	2	375
4	"	"	E. & W.	2	350
5	"	3	E. N. & W.	2	375
6	"	"	E. & W.	2	350
7	"	4	E. & N.	None	195
8	"	"	W. & N.	"	195
9	"	"	W.	"	165
10	"	"	E.	"	165
11	Middle	1	"	"	175
12	"	"	W.	"	175
13	"	"	"	"	175
14	"	"	E.	"	175
15	"	2	"	"	185
16	"	2	W.	"	185
17	"	"	"	"	185
18	"	"	E.	"	185
19	"	3	"	"	185
20	"	"	W.	"	185
21	"	"	"	"	185
22	"	"	"	"	185
23	"	4	E.	"	165
24	"	"	W.	"	165
25	"	"	"	"	165
26	"	"	E.	"	165
27	South	1	E. & W.	1	350
28	"	1	E. S. & W.	1	375
29	"	2	E. & W.	2	350
30	"	"	E. S. & W.	2	375
31	"	3	E. & W.	2	350
32	"	"	E. S. & W.	2	375
33	"	4	E.	None	165
34	"	"	W.	"	165
35	"	"	W. & S.	"	195
36	"	"	E. & S.	"	195

## BROWN UNIVERSITY

## MAXCY HALL

<i>No.</i>	<i>Floor</i>	<i>Windows face</i>	<i>Rent</i>
313	3	E.	\$140
314	"	"	140
315	"	E. & S.	140
316	"	W. & S.	135
317	"	W.	135
318	"	"	135
319	"	"	135
320	"	"	135
321	"	W. & N.	135
322	"	E. & N.	140
323	"	E.	140
324	"	"	140
425	4	"	140
426	"	"	140
427	"	E. & S.	140
428	"	W. & S.	135
429	"	W.	135
430	"	"	135
431	"	"	135
432	"	"	135
433	"	W. & N.	135
434	"	E. & N.	140
435	"	E.	140
436	"	"	140

## DIRECTORY TO THE DORMITORIES

Hope College, South Division, Rooms 1 to 16.

Hope College, Middle Division, Rooms 17 to 32.

Hope College, North Division, Rooms 33 to 48.

Maxcy Hall, Rooms 313 to 436.

Slater Hall, South Division, Rooms 1 to 9.

Slater Hall, North Division, Rooms 10 to 20.

University Hall, South Division, Rooms 1 to 34.

University Hall, North Division, Rooms 35 to 61.

Caswell Hall, North Division, Rooms 1 to 10.

Caswell Hall, Middle Division, Rooms 11 to 26.

Caswell Hall, South Division, Rooms 27 to 36.

# SUMMARY OF STUDENTS

## UNDERGRADUATE MEN

Seniors	148
Juniors	135
Sophomores	151
Freshmen	212
Special Students	29
Total	<hr/> 675

## THE WOMEN'S COLLEGE

Seniors	36
Juniors	45
Sophomores	51
Freshmen	50
Special Students	7
Total	<hr/> 189

## GENERAL SUMMARY

Graduates	84
Undergraduate Men	675
Women's College	189
	<hr/> 948
Deduct for names counted twice	4
Total	<hr/> 944

# DIRECTORY OF OFFICERS AND STUDENTS

The addresses given are in Providence, unless otherwise stated. If an officer is on leave of absence for the year, his name is bracketed. The following abbreviations are used: *Fr.* = Freshman; *So.* = Sophomore; *Jr.* = Junior; *Sr.* = Senior; *Sp.* = Special Student; *Gr.* = Graduate Student; *W.* = Women's College; *J. C. B. L.* = John Carter Brown Library; *H.* = Hope College; *U.* = University Hall; *S.* = Slater Hall; *M.* = Maxcy Hall; *C.* = Caswell Hall; *B.* = Brunonia Hall; 65 College = 65 College Street, Providence, etc. Where no state is mentioned, Rhode Island is to be understood. The number *precedes* the name of a street, but *follows* the name of a building.

ABBOTT, A. L., *Trustee*  
102 No. Broadway, St. Louis, Mo.  
Abbott, C. H., *Jr.* 132 Angell  
Abbott, F. R., *So.* U. 60  
Abbott, J. B., *Fr.* C. 31  
ABERCROMBIE, D. W., *Trustee*  
Worcester, Mass.  
Ackley, V. A., *So.* U. 47  
Adams, E. A., *Sr.* 41 George  
Adams, F. E., *Fr.* B. 1  
Adelman, D. I., *So.* 228 Prairie Ave.  
Affleck, J. G., *Jr.*, *So.* 4 Manning  
Ainsworth, L. J., *So.*  
242 No. Main, Attleboro, Mass.  
Alexander, J., *Fr.* H. 8  
Allen, C. G., *Sp.* 62 Paterson  
Allen, E., *Fr.* H. 11  
ALLEN, Miss G. M., *Clerk; Librarian*  
Riverside  
Allen, R. D., *Gr.*  
Y. M. C. A., Pawtucket  
ALLINSON, F. G., *Prof.* 163 George  
ALLINSON, Mrs. F. G., *Adv. Council, W.* 163 George  
Allison, S. W., *Fr.* S. 6  
Anderson, E. A., *W. Sr.* 118 Cushing  
Anderson, E. G., *W. Sp.* 31 Babcock

Anderson, J. G., *So.* U. 22  
ANDERSON, T. D., *Sec'y of Corporation*  
2 Wellington Ter., Brookline, Mass.  
Andrews, L. H., *W. Sr.* 63 Barnes  
Andrews, R. B., *Sr.* 54 College  
Andrews, W. C., *So.* 41 George  
Angell, C. H., *Fr.* 61 Atlantic Ave.  
Angell, E. L., *W. Fr.* 43 Hammond  
Angell, L. M., *W. Sr.* 254 Washington  
Anthony, A. W., *Fr.* H. 7  
Appleton, E., *Gr.* 209 Angell  
APPLETON, J. H., *Prof.* 209 Angell  
Appleton, M., *W. So.* 209 Angell  
Archambault, C. F., *Sr.* Arctic  
Archambault, P. G., *Fr.* Arctic  
ARCHIBALD, R. C., *Asst. Prof.*  
9 Charles Field  
ARNOLD, J. O., *Physician, W.*  
101 Brown  
Arnold, P. F., *Jr.* 100 Waterman  
Arnold, S. T., *Jr.* U. 53  
Aron, S. L., *Jr.* 68 Bishop  
Ashbaugh, R. G., *Jr.* 41 George  
ASHTON, J. H., *Engineer* 29 Preston  
Ashton, L. R., *So.* C. 19  
ATWATER, R. M., *Trustee*  
Chadds Ford, Pa.

Austin, C. R., <i>Gr.</i>		BATES, Mrs. L. P., <i>Keeper of Graduate Records</i>	Oak Lawn
228 Jackson, Trenton, N. J.		Bates, M. C., <i>W. So.</i>	55 Bainbridge
Ayres, C. E., <i>Sr.</i>	110 Waterman	Baxter, H. S., <i>W. So.</i>	118 Cushing
Babington, P. C., <i>Fr.</i>	H. 13	Bayley, M. H., <i>W. Jr.</i>	118 Cushing
BACHMANN, J. H., <i>Instr.</i>	144 Congdon	Beachen, A. E., <i>So.</i>	456 West Ave., Pawtucket
BACON, J. H., <i>Asst. Prof., Gr.</i>	64 Barnes	Bean, S. S., <i>So.</i>	H. 39
Bagnall, C. L., <i>So.</i>	C. 15	Beattie, J. H., <i>Sr.</i>	H. 11
Bailey, W. E., <i>Jr.</i>	94 Angell	Beckwith, H. L. P., <i>So.</i>	56 Waterman
BAILEY, W. W., <i>Prof. Emeritus</i>	6 Cushing	BEEBE, Miss J. E., <i>Stenographer, Physical Dept.</i>	47 George
Bair, J. R., <i>Jr.</i>	C. 8	Beehan, W. E., <i>Fr.</i>	9 Messer
Baker, H. B., <i>Jr.</i>	250 Lockwood	Belanger, I. M. C., <i>W. Jr.</i>	125 Governor
Balcom, F. O., <i>Sp.</i>	147 Broadway	Bell, Miss H. N., <i>Gr.</i>	Bristol
Bancroft, R. M., <i>W. Jr.</i>	254 Washington	Bell, K. S., <i>Sr.</i>	110 Waterman
Banfield, S. M., <i>Sp.</i>	B. 12	BENEDICT, G. W., <i>Assoc. Prof.</i>	16 John
Banks, H. C., <i>Jr.</i>	C. 19	Bengert, E. P., <i>Sr.</i>	62 College
Banks, J. W., <i>Fr.</i>	281 Thayer	Bennell, R. J., <i>Jr.</i>	S. 4
Banks, M. A., <i>W. So.</i>	197 Colfax	Bennett, H. C., <i>W. Sr.</i>	113 East Manning
Bannan, M. F., <i>W. Fr.</i>	313 Prairie Ave.	Bennett, M. E., <i>W. Sr.</i>	113 East Manning
Barbour, E. N., <i>Fr.</i>	65 College	Berriman, E. W., <i>So.</i>	4 Manning
BARBOUR, H. M. <i>Gr., Asst.</i>	101 Congdon	Beytes, L. H., <i>Sr.</i>	101 Waterman
BARBOUR, T. S., <i>Trustee</i>		Bien, Z. S., <i>Sr.</i>	81 Barnes
Tremont Temple, Boston, Mass.		Bishop, M. C., <i>W. Sr.</i>	118 Cushing
Barnard, A. E., <i>Fr.</i>	6 Dartmouth Ave.	Blackway, C. E., <i>So.</i>	H. 34
Barnicle, M. E., <i>W. Jr.</i>	221 Messer	Blake, F. C., <i>Jr.</i>	H. 12
Barr, J. H., <i>W. Jr.</i>	117 Howell	Blake, I. H., <i>Gr.</i>	R. I. Hall
Barrett, H. I., <i>W. Jr.</i>	20 Babcock	Blake, P. W., <i>Sr.</i>	B. 2
Barrington, L., <i>Fr.</i>	36 George	Blake, S., <i>Sr.</i>	H. 48
Barrows, F. C., Jr., <i>Sr.</i>	C. 17	Blanchard, E. H., <i>Jr.</i>	U. 46
Bartlett, A. E., <i>So.</i>	4 Manning	Blanchard, R. L., <i>Fr.</i>	U. 31
Baruch, I., <i>Fr.</i>	M. 322	Bliss, H., <i>Fr.</i>	C. 5
BARUS, C., <i>Prof.; Dean of Graduate Dept.</i>	30 Elmgrove Ave.	Bliven, G. F., <i>Fr.</i>	162 Albert Ave., Edgewood
BARUS, Mrs. C., <i>Adv. Council, W.</i>	30 Elmgrove Ave.	Blodgett, W. W., <i>Jr.</i>	71 Park Place, Pawtucket
Bass, W. J., <i>Jr.</i>	C. 15	Blomberg, C. H., <i>Jr.</i>	94 Angell
Bateman, R. L., <i>Fr.</i>	M. 317	Boardman, E. H., <i>Sr.</i>	H. 22

Boardman, I. T., <i>So.</i>	C. 22	Brown, D. L., <i>Sr.</i>	S. 18
Boas, G., <i>Jr.</i>	184 Atlantic Ave.	Brown, E. K., <i>So.</i>	H. 18
Bodfish, E., <i>W. So.</i>	118 Cushing	BROWN, Miss G. E., <i>Sec'y to Dean</i>	
Bogle, M. L., <i>W. Jr.</i>	182 Meeting		42 W. Friendship
Bohl, L. T., <i>Jr.</i>	41 George	Brown, H. A., <i>So.</i>	107 George
Bongartz, R. B., <i>Fr.</i>	S. 2	Brown, H. C., <i>Jr.</i>	U. 53
Borden, R. F., <i>So.</i>	33 Angell	Brown, H. G., <i>Sr.</i>	4 Travers
Borland, A. P., <i>W. Sr.</i>	20 Nebraska	Brown, J. W., <i>Sr.</i>	C. 33
Bosworth, A. D., <i>W. So.</i>		BROWN, L., <i>Trustee</i>	
	160 Burrington		16 Warren, Norwich, Ct.
Bosworth, M. E., <i>W. Jr.</i>	Georgiaville	Brown, L. J., <i>W. So.</i>	Barrington
Bosworth, M. L., <i>W. So.</i>		Browne, A. M., <i>W. So.</i>	
	359 Blackstone		232 Cottage, Pawtucket
Boudreau, A. H. O., <i>So.</i>	161 Grove	Browne, W. W., <i>Gr.</i>	157 Williams
Bourgeois, A., <i>W. Jr.</i>	5 Hidden	Browning, M., <i>W. Jr.</i>	
Bourn, J. M., <i>W. Fr.</i>	265 Orms		39 Underwood, Pawtucket
Bourn, L. E., <i>W. Fr.</i>	265 Orms	BUCHER, J. E., <i>Assoc. Prof.</i>	Summit
Bowen, E. A., <i>Fr.</i>	201 Waldo	Buddington, A. F., <i>Sr.</i>	H. 29
Bowen, J. B., <i>Fr.</i>	64 Summit, Pawt.	Buehler, W. F., <i>So.</i>	C. 21
Bower, J. H., <i>Fr.</i>	U. 40	Buffum, M. C., <i>Jr.</i>	C. 32
Boyd, W. E., <i>So.</i>	101 Waterman	Bugbee, E. T., <i>So.</i>	41 George
Brackett, E. T., <i>Jr.</i>	132 Angell	Bullock, J. R., <i>Gr.</i>	30 Lockwood
Brady, C. E., <i>So.</i>	82 Lester	BUMPUS, H. C., <i>Fellow</i>	[Wis.
Brady, F. J., <i>So.</i>	148 Pocasset Ave.		University of Wisconsin, Madison,
Breckenridge, F. C., <i>Fr.</i>	H. 13	Bunker, J. W. M., <i>Gr.</i>	
Breckenridge, W. T., <i>Fr.</i>	U. 18		216 Pleasant, Newton Centre, Mass.
Brereton, P. H., <i>Fr.</i>	U. 50	Burbank, P., <i>Gr.</i>	37 Barnes
Brice, H. D., <i>Fr.</i>	690 Angell	Burdon, M. J., <i>W. So.</i>	118 Cushing
Briggs, D. S., <i>W. So.</i>	141 Superior	Burgess, F., <i>Jr., Sr.</i>	C. 26
Briggs, H. H., <i>W. So.</i>	141 Superior	Burgess, G. S., <i>Sr.</i>	54 College
Bronson, H. R., <i>W. Jr.</i>		Burgess, W. R., <i>Sr.</i>	100 Waterman
	140 Morris Ave.	BURLINGAME, E. A., <i>Supt. Grounds</i>	
BRONSON, Mrs. M. W., <i>Asst.</i>			and Buildings 359 Brook
	11 Benefit	Burnham, C. E., <i>Sr.</i>	B. 2
BRONSON, W. C., <i>Prof.</i>		Burnham, R. E., <i>Jr.</i>	H. 21
	140 Morris Ave.	Burnham, W. R., <i>So.</i>	H. 27
BROOKS, F. E., <i>Trustee</i>		Burns, F., <i>Fr.</i>	94 Angell
	Colorado Springs, Col.	Burr, H. C., <i>Sr.</i>	H. 14
BROOKS, J. A., <i>Assoc. Prof.</i>		BURRAGE, H. S., <i>Fellow</i>	Togus, Me.
	25 Everett Ave.	Burrill, L. H., <i>Fr.</i>	260 Benefit
Brooks, R. C., <i>W. Jr.</i>	57 John	Burroughs, L. F., <i>Sr.</i>	H. 5
BROWN, C. W., <i>Asst. Prof.</i>		BURTON, Miss A. I., <i>Asst.</i>	
	19 Diman Place		1121 Main, Pawtucket

Burton, S. S., Jr., <i>Sp.</i>		Christianson, A. O., <i>Sr.</i>	M. 429
388 Angell Road, No. Providence		Church, M. B., <i>W. Sr.</i>	
Burwell, J. K., <i>Jr.</i>	S. 9	292 Wayland Ave.	
Burwell, W. R., <i>Fr.</i>	S. 9	Church, Miss M. D., <i>Gr.</i>	Bristol
Bushell, G. C., <i>W. Jr.</i>	617 Hope	CLARK, T., <i>Asst. Registrar</i>	
Butler, G. M., <i>W. Sr.</i>		152 Congdon	
14 Summit Ave., Mansfield, Mass.		Clarke, M. F., <i>W. Jr.</i>	Centerville
Buzzell, E. G., <i>Sr.</i>	No. S.	Cleaveland, E. R., <i>So.</i>	U. 47
		Clegg, C. M., <i>Fr.</i>	C. 36
CADY, H. D., <i>Instr.</i>	U. 1	Cloues, A. S., <i>Sr.</i>	132 Angell
Caldwell, E. M., <i>W. Sr.</i>		Clow, B. A., <i>W. So.</i>	182 Meeting
42 Walker, Pawtucket		Coburn, R. V., <i>Jr.</i>	65 College
Campbell, E. R., <i>So.</i>	H. 15	Cockroft, G. A., <i>W. So.</i>	38 Congdon
Campbell, Miss G. H., <i>Gr.</i>		Coffin, A. B., <i>W. Fr.</i>	125 Governor
71 Sycamore		Colas, A., <i>Sr.</i>	65 College
Campbell, L. B., <i>Fr.</i>	H. 23	COLBY, E., <i>Trustee</i>	
Carlborg, Miss E. M. L., <i>Gr.</i>		Llewellyn Park, Orange, N. J.	
124 Atlantic Ave.		COLBY, G., <i>Trustee</i>	
Carlson, J. R., <i>Fr.</i>	H. 27	132 Harrison, East Orange, N. J.	
Carroll, J. J., <i>Fr.</i>	S. 7	Collett, Miss M. E., <i>Gr.</i>	188 Meeting
Carr, L. H., <i>Jr.</i>	132 Angell	COLLIER, T. F., <i>Assoc. Prof.</i>	
Case, J. R., <i>Jr.</i>	U. 52	86 Upton Ave.	
Casey, J., Jr., <i>Jr.</i>	S. 7	COLLINS, G. L., <i>Trustee</i>	223 Benefit
CASWELL, R. G., <i>Gr., Instr.</i>		Collins, K., <i>So.</i>	44 E. Manning
110 Waterman		Collins, M. G., <i>W. Sr.</i>	118 Cushing
Cate, A. W., <i>Fr.</i>	162 Wayland Ave.	Collins, P. D., <i>Jr.</i>	101 Waterman
Catlin, M. F., <i>W. Sr.</i>	118 Cushing	Collins, S. C., <i>Sr.</i>	54 College
CHACE, A. B., <i>Trustee and Chancellor</i>		Colwell, R. C., <i>Jr.</i>	132 Angell
324 Angell		Conant, G. M., <i>W. Sr.</i>	
CHACE, J., <i>Trustee</i>	Valley Falls	119 Division, Pawtucket	
Chadwick, R. H., <i>Sr.</i>	H. 23	Conant, H. N., <i>Fr.</i>	C. 3
Chamberlain, A. K., <i>W. Jr.</i>		Cone, H. A., <i>Fr.</i>	H. 43
781 Broad, Central Falls		Conyers, H., <i>Sr.</i>	34 Bridgham
CHAMBERS, R. F., <i>Gr., Asst.</i>		Conzelman, J. H., <i>Sr.</i>	94 Angell
89 Courtland		Cook, A. N., <i>So.</i>	81 Waterman
Champney, H. H., <i>So.</i>		Cook, E. P., <i>So.</i>	65 College
397 Winthrop, Taunton, Mass.		Cook, J. E., <i>So.</i>	M. 432
Chandler, T., <i>Fr.</i>	H. 44	Cook, J. W., <i>W. So.</i>	125 Governor
Chandler, W. W., <i>Fr.</i>	4 Cushing	Cooke, L. E., <i>W. Sr.</i>	134 Congdon
Chapman, B. E., <i>Fr.</i>	S. 15	Cooke, R. E., <i>W. So.</i>	45 Arch
Chapman, M. M., <i>W. So.</i>	129 Moore	Coolidge, E. F., <i>W. Jr.</i>	125 Governor
Chappell, W. A., <i>So.</i>	M. 316	Cooper, F. E., <i>Jr.</i>	H. 25
CHINARD, G., <i>Instr.</i>	11½ John	Cooper, L. L., <i>W. Fr.</i>	Attleboro, Mass.

- Copeland, R. E., *Fr.* H. 27  
 Corcoran, E. J., *Fr.* C. 23  
 Corp, C. F., *Fr.* 94 Angell  
 Cram, F. M., *So.* 110 Waterman  
 Cram, R. W., *Fr.* H. 40  
 Cripps, E. T., *Jr.* 54 Sampson Ave.  
 Crocker, F. B., *Fr.* M. 427  
 Crocker, L. V., *Sr.* U. 51  
 Crompton, E. L., *W. Fr.* Lonsdale  
 Crooker, H., *W. Fr.*  
 2242 Cranston, Meshanticut  
 Crooks, M., *W. So.* 118 Cushing  
 CROSBY, T., *Assoc. Prof.* 49 George  
 Cross, C. M. P., *Fr.* 265 Doyle Ave.  
 CROSS, H., *Asst. Prof.* 388 Benefit  
 Crossley, Miss F. A., *Gr.* 1412 Broad  
 CROWELL, A. C., *Assoc. Prof.*  
 345 Hope  
 Crowell, M. J., *Fr.* H. 40  
 Crowther, G. M., *Jr.* H. 10  
 Crum, P. R., *Fr.* C. 29  
 Crum, R. B., *Jr.* C. 30  
 Culver, S. E., *Fr.* S. 6  
 Cummings, J. L., *So.* U. 16  
 Cummings, L. R., *Sr.* C. 33  
 Cummings, W. W., *Sr.*  
 469 Chalkstone Ave.  
 CURRIER, C. H., *Instr.* 19 Barnes  
 Curry, K. E., *W. So.* 52 Peace  
 Curtis, P. O., *Fr.* S. 6  
 Cushing, H. L., *So.* Seekonk, Mass.  
 Cushman, J. H., *Jr.* B. 10  
 Cutler, M. E., *W. So.*  
 6 Brook, Pawtucket  
 DAHLGREN, Miss E. H., *Gr., Asst.*  
 204 Bronson Annex, Attleboro, Ms.  
 Daland, E. M., *Sr.* 94 Angell  
 DALE, N. C., *Instr.* 39 Benevolent  
 DAMON, L. T., *Prof.* U. 36  
 Daniels, H. A., *W. Fr.* 119 Thayer  
 Davenport, L. L., *W. Jr.*  
 158 Pine, Pawtucket  
 Davis, C. A., *So.* 101 Waterman  
 Davis, D., *W. Sp.* 47 Barnes  
 Davis, F., *Fr.* H. 44  
 Davis, F. P., *Jr.* C. 19  
 Davis, H. A., *Fr.*  
 11 Maple, Taunton, Mass.  
 DAVIS, N. F., *Prof.* 159 Brown  
 Deady, W., *Jr., So.* H. 21  
 Dealey, H. L., *W. So.* 872 Hope  
 DEALEY, J. Q., *Prof.* 872 Hope  
 Dealey, W. L., *Jr.* 872 Hope  
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 15 Wales, Arlington  
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 9 Arlington Ave.  
 Delano, E. R., *Jr.* U. 46  
 Deming, W. S., *Sr.* 81 Waterman  
 Denham, H. G., *Fr.* S. 6  
 Dennis, H. K., *Sr.* B. 4  
 Devine, M. F., *W. So.* 118 Cushing  
 Dexter, R. C., *Sr.* 100 Waterman  
 Dexter, V. M., *W. Jr.*  
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 Dike, D., *So.* C. 14  
 Dinkins, W. H., *Sr.* 72 Meeting  
 Dobler, Miss L. T., *Gr.* 147 Benefit  
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 Domin, L. V., *Sr.* 488 Prairie Ave.  
 Donnan, W. D., *Fr.* U. 33  
 Donovan, D. G., *Sr.* C. A  
 Douglas, B., *W. So.* 118 Cushing  
 DOUGLASS, W. W., *Trustee*  
 107 Prospect  
 Dow, H. E., *So.* 41 George  
 Dowell, N. E., *W. Jr.* 125 Fifth  
 DOYLE, Miss S. E., *Adv. Council, W.*  
 119 Prospect  
 Drake, H. F., *Fr.* H. 14  
 Droegge, J. A., *Jr., So.* 52 Patterson  
 Drury, R. S., *Sr.* C. 16  
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 Dugan, P. F., *So.* 110 Waterman



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 Duncan, N. L., *Fr.* H. 38  
 DUNNING, J. C., *Instr.* 45 Waterman  
 Durfee, E. C., *Jr.* H. 15  
 Durgin, A. D., *So.* 101 Waterman  
 Dyer, R. A., *Fr.* 294 Benefit

Eastburn, A. C., *Sr.* S. 4  
 Easton, F. W., *Jr.*, *So.* No. S  
 Eastwood, W. R., *Jr.* 101 Waterman  
 Eaton, H. R., *Gr.*

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 Edwards, H. E., *Sp.* 14 Gladstone  
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EDWARDS, S. O., *Trustee*  
 181 Lloyd Ave.

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 Eicke, W. H., *Fr.* H. 7  
 Elms, J. C., *Jr.*, *Sr.* 54 College  
 Emery, E. H., *Fr.* U. 12  
 Emerson, Miss H., *Gr.*

162 Blackstone Boulevard

Emmons, H. E., *Jr.*, *Fr.* 94 Angell  
 Emmons, W. J., *Sr.* C. 19  
 Emsley, M. J., *W. Sr.* No. Scituate  
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 EVERETT, W. G., *Prof.* 116 Governor  
 Everingham, C. D., *Fr.* U. 25  
 Ewing, G. B., *Fr.* C. 4

Fagan, M. E., *Fr.* 12 Burnside  
 Falk, E. H., *Fr.* H. 42  
 Fanning, L. H., *W. Fr.*

8 Jones, Valley Falls

Farnham, J. H., *So.* 4 Manning  
 Farnsworth, T. B., *Sr.* B. 13  
 Farnum, M. M., *W. Fr.* 118 Cushing  
 FAUNCE, W. H. P., *President* 180 Hope

Fay, S. F., *Fr.* H. 17  
 Feeney, A. E., *Fr.* 604 Broadway  
 Fettelberg, A., *So.* M. 322

Fenner, R. E., *Gr.* 20 Hudson

FERGUSON, J. B., *Dem'r* 369 Broad

Ferguson, P. W., *So.* 132 Angell

Ferry, O. R., *Sr.*, *Gr.* M. 316

Field, Miss A., *Gr.* 222 Medway

Field, D. B., *W. Fr.* 222 Medway

FIELD, R. F., *Instr.* 25 Wilson

Field, R. W., *Jr.* No. S.

Files, C. A., *So.* C. 22

Fill, C., *W. Jr.* 118 Cushing

Fine, L. M., *So.* M. 318

Firebaugh, C. W., *So.* H. 42

Fisher, C. E., *Gr.* 232 Pleasant

Fisher, W. N., *So.* C. 28

Fiske, F., *So.* H. 24

Flagg, M. M., *W. So.* 118 Cushing

Flaherty, A. M., *W. So.*

28 John, Valley Falls

Fletcher, T. L., *Sr.* 41 George

Fogg, M. M., *W. Sr.* 118 Cushing

Foote, H. E., *So.* M. 315

Forrist, J. H., *Sr.*, *Gr.*

276 Washington Ave.

Forward, M. K., *So.* 110 Waterman

Foss, S. W., *So.* 110 Waterman

Foulkes, C. T., *W. Fr.*

23 Summit Ave., Mansfield, Mass.

Fowler, H. M., *W. Jr.* 118 Cushing

FOWLER, H. T., *Prof.* 127 Lloyd Ave.

Francis, P. H., *Sr.*

385 Laurel Hill Ave.

Frost, F. B., *Fr.* 509 Park Ave.

Frost, M. F., *Sp.*

141 Wilson Ave., Rumford

Fuller, Miss M. A., *Gr.*

79 Charles Field

Gaiser, F. R., *Jr.* 4 Manning

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Gallup, W. L., *Fr.* 184 Cypress

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 Gannon, W. A., *Fr.* M. 320  
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 Gardiner, E. R., *W. Sp.* 156 Cypress  
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 Garrett, W. H., *Jr.* 132 Angell  
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 Gelb, V. C., *Jr.* 4 Manning  
 Gendron, A. L., *Sp.* M. 314  
 Gibbs, F. B., *Jr.* 110 Waterman  
 GIBBS, Miss L. R., *W. Sp., Cataloguer* 66 College  
 Giblin, J. V., *So.* M. 315  
 Gifford, C. F., *Sr.* H. 28  
 Gilbert, J. J., *Sr.* U. 16  
 Gilliland, H. A., *W. So.* 118 Cushing  
 Gillis, R. A., *Sp.* 53 Tobey  
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 Glassel, F. W., *Fr.* 10 Congdon  
 GODDARD, R. H. I., *Fellow* 50 So. Main  
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 Goldberg, J. S., *Jr.* C. 17  
 Goodchild, A. R., *W. So.* 51 Laura  
 Goodspeed, G. S., *So.* Oaklawn  
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 Gottshall, A. E., *Fr.* 10 Congdon  
 Gottstein, J., *Fr.* 107 Angell  
 Gould, A. G., *Jr.* M. 321  
 Graham, R. B., *Fr.* U. 58  
 Grandfield, M. C., *W. So.* 282 West Ave., Pawtucket  
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 Greene, J. H., *Jr., Fr.* M. 323  
 Greene, J. I., *Fr.* 54 College  
 Greene, M. B., *W. Jr.* 5 Catalpa Road  
 Gretsche, A. H., *Jr.* U. 51  
 Grindy, A. L., *Fr.* 119 Waterman  
 Grinnell, C. J., *Fr.* 72 Meeting  
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 Grout, H. A., *Jr.* No. S.  
 Guild, F. H., *Jr.* No. S.  
 GUILD, F. T., *Registrar and Sec'y of Faculty* 9 Oriole Ave.  
 Guillemette, J. D., *Sr.* 70 Magill, Pawtucket  
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 Gyllenberg, Miss I. A., *Gr.* 78 Mitchell  
 Hadfield, J. P., *So.* 166 Arnold Ave., Edgewood  
 Hadley, C. B., *Sp.* 86 Tobey  
 Hahn, C. A., *Fr.* 4 Manning  
 Haire, J. R., *Fr.* C. 23  
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 Hall, R. W., *So.* C. 22  
 Hall, L., *Fr.* 185 Althea  
 Handy, E. R., *Sr.* H. 5  
 Harcourt, H. N., *Fr.* B. 6  
 HARKNESS, A. G., *Prof.* 7 Cooke  
 HARKNESS, S. B., *Instr.* 92 Williams  
 Harley, M. P., *W. Fr.* 22 Church, Pawtucket

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Harris, J. E., <i>Jr.</i>	4 Bell	HILL, J. E., <i>Prof.</i>	86 Taber Ave.
Harris, S. P., <i>Sp.</i>	97 Dyer	Hill, P. W., <i>Fr.</i>	23 Barrows
Harris, W. E., <i>So.</i>	150 Smith	HILL, Miss S. E., <i>Sec'y to Registrar</i>	
Harris, W. R., <i>Jr.</i>	S. 7		82 Olney
Hart, J. E., <i>Fr.</i>	H. 45	Himes, L. S., <i>W. Jr.</i>	Phenix
Hastings, H. M., <i>W. Jr.</i>	118 Cushing	Hincks, E. W., <i>Fr.</i>	62 Glenham
HASTINGS, W. T., <i>Instr.</i>	13 John	Hindle, C. D., <i>Sr.</i>	H. 24
HASTINGS, Mrs. W. T., <i>Adv. Council,</i>		Hodges, G. W., <i>So.</i>	H. 18
<i>W.</i>	13 John	Hoffman, A. S., <i>So.</i>	No. S.
Hatch, Miss M. A., <i>Gr.</i>		Holden, E. E., <i>W. So.</i>	
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Haven, M. B., <i>Fr.</i>	H. 43	Holding, R. S., Jr., <i>So.</i>	4 Manning
Hawes, I., <i>W. Sr.</i>	Riverside	HOLT, N. E., <i>Gr., Instr.</i>	115 Governor
Hawes, R. P., <i>Sr.</i>	Riverside	Hood, P. H., <i>Sr.</i>	100 Waterman
Haworth, S. L., <i>Gr.</i>		Hopkins, F. B., <i>W. Fr.</i>	101 Congdon
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Hazard, G. N., <i>Jr.</i>	H. 1		Newton Centre, Mass.
HAZARD, R. G., <i>Fellow</i>	Peace Dale	Horrigan, E. J., <i>So.</i>	C. 9
Hebner, G. E., <i>Fr.</i>	M. 427	Horsman, O. C., <i>Gr.</i>	
Heltzen, F. V., <i>W. So.</i>	238 Waterman		1020 High, Williamsport, Pa.
Hemenway, L. S., <i>Fr.</i>	S. 5	Horton, M. K., <i>W. Fr.</i>	118 Cushing
Hempel, E. A., <i>W. Fr.</i>		Howard, V. D., <i>Fr.</i>	263 Charles
	168 Progress Ave.	Howe, A. W., Jr., <i>Jr.</i>	4 Manning
Hempel, E. G., <i>Jr.</i>	168 Progress Ave.	Howe, W. M., <i>Jr.</i>	H. 18
HENDERSON, W. B., <i>Gr., Asst.</i>		HOYT, C., <i>Trustee</i>	
	116 Governor		55 Wall, New York, N. Y.
Henderson, R. M., <i>W. Fr.</i>		Hubbard, A., <i>W. Sr.</i>	144 Congdon
	118 Cushing	Hubbard, D. M., <i>Fr.</i>	H. 38
Hennessey, H., <i>Sr.</i>	4 Manning	Hubbard, H. G., <i>Gr.</i>	110 Waterman
Henry, D. E., <i>So.</i>	100 Waterman	HUGHES, C. E., <i>Fellow</i>	2401 Massa-
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Hibbs, H. H., Jr., <i>Gr.</i>		Hull, D. P., <i>W. So.</i>	484 Hope
	20 Union Park, Boston, Mass.	Hull, N. B., <i>Jr.</i>	C. 30
Higgins, A. H., <i>Jr.</i>	132 Angell	Humphrey, K., <i>Sr.</i>	100 Waterman
Higgins, C. H., <i>Fr.</i>	U. 27	HUNKINS, C. H., <i>Asst. Prof.</i>	
High, L. C., <i>Jr.</i>	270 Lowell Ave.		107 Angell

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Hurlin, R. G., *Sr.* 100 Waterman  
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Hyde, H. C., *Fr.* 1531 Cranston
- Ingalls, H. E., *So.* H. 2  
Isaacson, A. S., *Jr.* 56 State
- JACOBS, W. B., *Prof.* 310 Olney  
Jencks, F. M., *Gr.* 101 Waterman  
Jencks, W. L., *Sr.* H. 16  
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JOHNSON, A. B., *Assoc. Prof.* 168 Walnut, East Providence  
Johnson, R. N., *So.* H. 47  
Johnston, G. B., *Fr.* M. 428  
Jones, B. L., *Fr.* Moses Brown School  
Jones, E. W., *W. Fr.* 127 Howell  
Jones, H. M., *Sr.* C. 18  
Jones, H. P., *Sr.* 94 Angell  
Jones, M. H., *W. So.* 118 Cushing  
Jones, R. W., *Fr.* 65 College  
Jones, T., *W. Jr.* 127 Howell  
Joslin, C. F., *Jr.* 65 College  
JUDSON, E., *Fellow* [N. Y. 53 Washington Sq., So., New York,
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KEEN, W. W., *Fellow* 1729 Chestnut, Philadelphia, Pa.  
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Keily, T. L., *So.* C. A  
Kellen, P. S., *Fr.* C. 3  
KELLEN, W. V., *Trustee* 390 Commonwealth Ave., Boston, Mass.  
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- Kemp, S. M., *W. So.* 118 Cushing  
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Kendrick, L. C., *Sr.* H. 28  
KENERSON, W. H., *Assoc. Prof.* 100 Morris Ave.  
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Kenyon, L. C., *Fr.* H. 28  
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King, I. A., *So.* 81 Waterman  
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Kingsley, P. J., *Fr.* 605 Hope  
Kinne, H. C., *Fr.* 41 Lyon, Pawtucket  
Klebes, C. R., *Sr.* 309 Olney  
Kneeland, G. E., *W. Fr.* 118 Cushing  
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Knowles, C. L., *So.* H. 8  
Knowles, C. W., *Fr.* C. 31  
Knowlton, M. F., *W. Fr.* 16 Yorktown Place  
Kohlberg, B. F., *W. Sr.* 167 Wadsworth  
KOOPMAN, H. L., *Librarian* 57 East Manning  
Koopman, K. H., *Jr.* S. 9  
Kratz, O. M., *Jr.* B. A  
Kulp, D. H., *Jr.* U. 4
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Lahy, W. M., *So.* C. 10  
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Langdon, D., *Jr.* C. 32  
Langdon, G. W., *Jr., Sr.* 54 College  
Langley, A. L., *Jr.* M. 318

Langley, H., <i>Fr.</i>	M. 434	MacDowell, E. G., <i>So.</i>	C. 11
LAPHAM, O., <i>Trustee</i>	183 Watnman	McDuff, F. E., <i>So.</i>	U. 16
La Roe, G. H. A., <i>Fr.</i>	48 Rosedale	McGehearty, J. F. J., <i>Sr.</i>	159 Howell
Larrabee, H. A., <i>Fr.</i>	H. 30	McGovern, J. J., <i>So.</i>	21 Tecumseh
Lasker, L. H., <i>W. Sp.</i>	12 Mallett	McGuire, J. T. C., <i>Sr.</i>	C. 9
Lauer, C. F., <i>Fr.</i>	C. 1	McKay, R. C., <i>So.</i>	H. 12
Leacher, J., <i>Gr.</i>	Riverside	McKenzie, L. N., <i>Sp.</i>	S. 1
Legris, J. M., <i>So.</i>	Arctic	Mackie, M. R., <i>W. Fr.</i>	
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Lemon, A. B., <i>Jr.</i>	U. 4	MacLaughlin, E. A., <i>So.</i>	26 Amity
Leonard, C. A., <i>Sp.</i>	94 Angell	MacLaughlin, J. F., <i>Sr.</i>	26 Amity
Letts, I. L., <i>Jr.</i>	65 College	McLaughlin, R. H., <i>Fr.</i>	C. 27
LINCOLN, W. E., <i>Trustee</i>		McLaughlin, R. L., <i>Gr.</i>	56 Benefit
	815 Amberson Ave., Pittsburgh, Pa.	McLean, R. L., <i>Fr.</i>	H. 41
Lisk, A. V., <i>W. Jr.</i>	118 Cushing	MacLeod, C. G., <i>Fr.</i>	U. 50
Little, L. T., <i>Fr.</i>	U. 18	McLyman, B. M., <i>Jr.</i>	41 George
Littlefield, B., <i>W. Jr.</i>	102 Bowen	MacMillan, H. G., <i>Sr.</i>	110 Waterman
Liu, T. F., <i>Fr.</i>	H. 17	McMurtry, I., <i>W. Jr.</i>	41 Moore
Loftus, R. T., <i>W. Sr.</i>	56 Stewart	McNaught, W. M., <i>Fr.</i>	H. 35
Long, H. C., <i>Gr.</i>		McPhail, A. H., <i>Jr.</i>	119 Waterman
	Farwell Hall, Newton Centre, Mass.	Mahoney, D. L., <i>Jr.</i>	B. 9
LONG, J. J., <i>Instr., Gr.</i>		Mahoney, D. R., <i>Sr.</i>	B. 9
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Loucks, F. L., <i>So.</i>	H. 34	Mallory, M. A., <i>W. So.</i>	
Loud, E. C., <i>Fr.</i>	81 Waterman		235 Butler Ave.
Lovell, E. R., <i>W. So.</i>		Malloy, C. A., <i>Sr., Gr.</i>	U. 22
	207 Mauran Ave., E. Providence	MANATT, J. I., <i>Prof.</i>	59 Charles Field
Low, R. B., <i>So.</i>	H. 30	MANNING, H. P., <i>Assoc. Prof.</i>	
Lowrie, W. J., <i>Jr., So.</i>	C. 10		258 Medway
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Luber, A., <i>So.</i>	40 Bowen	Marchant, Miss G., <i>Gr.</i>	
Luther, E. F., <i>Fr.</i>	So. S		Cumberland Hill
Luther, M. R., <i>W. Jr.</i>	81 Camp	Marcus, I., <i>So.</i>	M. 322
McCauull, J. A., <i>Jr.</i>	C. A	MARSTON, E. L., <i>Trustee</i>	
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McCormick, J. H., <i>Sp.</i>	226 Olney	Martel, R. R., <i>Sr.</i>	
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MACDOUGALL, H. C., <i>Lecturer</i>		Martin, F. S., <i>Jr.</i>	H. 46
	29 Dover, Wellesley, Mass.	MAVEL, F. W., <i>Prof.</i>	281 Olney
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 MASON, M. C., *So.* H. 23  
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*University* 276 Benefit  
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 Medbery, H. E. M., *So.* No. S.  
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*Prof.* 95 Waterman  
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 Metcalf, J. T., *So.* C. 14  
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 Miller, E. H., *Sr.* 101 Waterman  
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 Miller, P., *Fr.* So. S.  
 Miller, L. C. T., *So.* H. 3.  
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 MITCHELL, P. H., *Asst. Prof.*  
 19 Creighton  
 Mitchell, S. K., *Fr.* 107 Angell  
 Mitchell, S. L., *Sr.* 132 Angell  
 Moffett, W. A., *So.* 132 Angell  
 Mohler, M., *Gr.* 139 Governor  
 Monroe, J. I., *W. Sr.* 107 Davis  
 Monroe, P. E., *Fr.* So. S.  
 Moore, F. A., *Gr.*  
 140 County, Attleboro, Mass.  
 Moore, M. E., *W. Fr.* 30 Cushing  
 Morgan, A. J., *Fr.* 184 Howell  
 Morgan, Miss M. J., *Gr.* 184 Howell  
 Morrill, N., *So.* C. 6  
 Morse, C. D., *Jr.* 100 Waterman  
 Morse, R., *Jr.* H. 4  
 MOTLEY, J. M., *Assoc. Prof.*  
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 Moulton, E. P., *W. So.* 518 Public  
 Mudge, C. S., *Gr.* 52 Mt. Vernon  
 Mulcahy, F. L., *Sr.* C. 1  
 Mumford, N. V. S., *Sr.* 54 College  
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 Myers, H. L., *Fr.* H. 45  
 Nash, H. R., *So.* 81 Waterman  
 Nash, K. L., *Sr.* 81 Waterman  
 Nathanson, S., *Sr.*  
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 Needham, W. A., *Sp.* 420 Orms  
 Nelson, W. C., *Sr.* C. 25  
 Newcombe, H. S., *Fr.* S. 6  
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 Olch, B. M., *Fr.* 306 Dudley  
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PALMER, A. DE F., <i>Assoc. Prof.</i>		POLAND, W. C., <i>Prof.</i>	53 Lloyd Ave.
	71 Elm Grove Ave.	PORTER, H. K., <i>Fellow</i>	
Palmer, J. M., <i>W. So.</i>	1536 Cranston		Pittsburgh, Pa.
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Parker, R. L., <i>Fr.</i>	M. 321	Potter, H. E., <i>W. Fr.</i>	Natick
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